An Address
ON
THE DUTY OF THE MEDICAL PROFESSION IN THE PREVENTION OF NATIONAL DETERIORATION.*

PRESIDENTIAL ADDRESS DELIVERED BEFORE THE MANCHESTER MEDICAL SOCIETY.

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IT is difficult in all countries to obtain statistical evidence which proves conclusively that a population has improved physically or the reverse. It is more difficult here, as detailed records are only available from army reports; and, as conscription does not exist, the measurements and weights taken only apply to a limited section of the community. But none of us who know the influence on health and strength of fresh air, good food, abundant light, and varied exercise, can doubt that—now more than 77 per cent. of our population live in big smoky towns, where dwellings are overcrowded and often densely packed together, with very little open space; where rapid transit is so easy and little exercise is taken; where the bad influences of drink and vice abound—degeneration is taking place. Those who oppose this view argue that a large proportion of the people classed as urban really live in wholesome suburbs, and that nutritious food is more easily obtained by the poorer classes than formerly. But there is a vast difference between a suburb and the country, and it is questionable whether our present dietaries are superior to the old. Mr. T. C. Horsfall, J.P., one of the foremost and most laborious workers in all spheres of social reform, has brought under my notice two valuable opinions bearing on this point. Dr. Grotjaun, after most exhaustive investigation, is convinced that the old diets of rye-bread and milk in Germany, and oatmeal, barley-meal, and sweet and butter milk in this country, gave better results than the tinned foods, bad fried fish, stewed tea, pickles, and other unwholesome and badly-cooked food upon which poorer parents often feed their children now. Admiral Bosanquet, who has been largely concerned with the training of boys for the Royal Navy, says that the finest boys come from the West of Ireland, where they have been mainly brought up on potatoes and fresh air. These boys hate the meat supplied to them in the navy, and often drop large portions of it into the sea. The same authority gives some striking statistics bearing upon physique. Owing to the popularity of the service and to the good pensions given, a large number of boys of classes higher than those that enter the army try to enlist. On an average 5,000 boys are needed annually; to get these 35,000 are rejected.

My own attention was first drawn to this subject twenty-five years ago by observing the poor physique of many young men who presented themselves for enrolment in our voluntary forces. During the intervening years I have had constant opportunities of observing not only our volunteer recruits but also the regular troops stationed at the Hulme Barracks, at which station from time to time I have had the medical charge of the hospital, and have conducted the medical examination of army recruits. Year after year the increasingly wretched physical condition of the majority of youths appearing for examination has deeply impressed me.

The standard for admission into the army is lower than in former years, and more men are examined and rejected before casualties are replaced. Statistics relating to the physique of recruits who have, in various years, tried to enlist into the British army cannot be regarded as conclusive, as a particular class of person must not be selected and relied upon to verify a universal truth, but in this country there is no other source where similar records have been kept.

Fifty years ago, as now, a recruit could enlist at the age of 18 years. The minimum height was then 5 ft. 4 in. It is now 5 ft. 3 in.; fifty years ago, however, a height of 5 ft. 4 in. would only admit a recruit into the army as an artillery or engineer driver, and the number required was small; 5 ft. 6 in. was the height for a line regiment; 5 ft. 3 in. will enter a recruit into any line regiment now.

Previous to 1883 a recruit could not enter the army unless his *minimum* chest measurement was 34 in. He can now enlist into some units with a chest of 31½ in., provided he has 2 in. expansion.

In 1862, 416 recruits per 1,000 weighed under 9 st. 4 lb.
In 1907, 657 recruits per 1,000 weighed under 9 st. 4 lb.

In 1862, 52 recruits per 1,000 weighed under 7 st. 12 lb.
In 1907, 83 recruits per 1,000 weighed under 7 st. 12 lb.

Fifty years ago, when the physical requirements for enlistment were much more stringent than now, 37 per cent. only of the recruits examined were unfit for service. In 1907, 39 per cent. were rejected by the medical officer; and General Sir Frederick Maurice considers that, when the numbers that are sent away by the recruiting sergeants and those dismissed as unfit after three months' service are taken into account, at least 60 per cent. are now lost to the army through physical unfitness.

This obvious deterioration of the class from which recruits are drawn is condoned by reference to unemployment and starvation; but these agencies have not been proved to be much more active now than in earlier times, taken over a series of years, and as the physical standard for admission into the army has been so often and progressively reduced, until it is now lower than ever before during peace, and as the population of the country is vaster by millions, the figures quoted should cause apprehension.

The foregoing particulars are given as evidence of physical degeneracy; but they are by no means relied upon to prove it; stress is laid rather on the mental than on the physical aspect of the case.

The previous figures do not apply to the whole population, but in Germany and other countries where conscription exists, the evidence is much sounder. It proves that the country places supply a much larger proportion of robust recruits than the towns, especially the larger towns.

You will not wish me to carry this question further. All will agree that there is at any rate deterioration enough to call for serious effort on our part to arrest its progress.

More Co-operation in our Profession Required.

The first point that I would submit is that more co-operation, more cordiality, is wanted in our profession if it is to become effective in its warfare against deterioration. All branches of the profession must be more closely welded together—the consultant, the teacher, the medical officer of health, the school medical officer, the general practitioner, all State-employed doctors. The work of each must be so interlinked with the other that broader views become possible, the corners of specialism rounded, the interest and special knowledge of the family doctor maintained and made use of; the collective experience of the whole co-ordinated.

At present no chain exists, only isolated links; some of them are strong, others weak. No serious attempt has been made to join them firmly together. The metal of most of the links has been well tried, and is sound, but a few of them contain flaws that can only be removed by reforging. It must be remembered that the strength of a chain is that of its weakest link.

Some of you will say that race regeneracy is the province of the public health specialist, and that he is reducing the risk of disease every year. But he is not so much concerned with the strengthening of the stamina as he is with the preservation of the race. He is catering for a weaker constitution, one that in olden days would have died in infancy or early youth. This is the tragedy as well as the glory of the problem. Life must be preserved; it is not for us to consider at the moment the effect upon that life or others, that the prolongation of a life entails. If the health medical officer is to accomplish much, he must work hand in hand with the family practitioner, and remember *his* perplexities, and the latter should be ready to do more than simply accept the privileges which the former offers him.

Our teachers, too—I say this with great respect—are not blameless. They attach so little importance to public

* In printing this address some introductory remarks and also some passages in the earlier part have been omitted owing to considerations of space.

health and other kindred subjects. Nothing is done in the student career to teach "brotherhood" amongst the various branches of our profession, nor responsibility concerning the improvement of race stamina Such matters are as seldom touched as those equally important ones of medical ethics and a practitioner's difficulties—problems which confront the latter so seriously during all periods of his career.

Increased Powers to Education Authorities.

Those interested in national health look for good results from the powers entrusted to the educational authorities by the Education (Administrative Provisions) Act, 1907. This gives authority to carry out a systematic inspection of all children attending the public elementary schools, and also to make provision for the benefit of their health and physical condition.

Until recently, with perhaps the exception of advice regarding vermin, and very minor ailments, all cases in which a child required medical advice have been referred to the family doctor, or in necessitous cases to a hospital. Under the extended powers that have now been given, the institution of school clinics for the treatment of medical and surgical cases is contemplated, and in some towns, notably Bradford, are already in operation. A perusal of the report of a Special Subcommittee of the London Education Committee on this subject, which favours such proposals, fails to convince me of any necessity for these clinics, nor of any need to subsidize general or special hospitals for the treatment of public elementary school children. It does, however, give grounds for apprehension that their adoption would seriously injure the rights of the profession, and that many children with parents well able to pay would receive gratuitous treatment. Ailing children should be referred to the family doctor, and cases requiring special treatment should be sent by him to a specialist, or in needy cases to a hospital. Hospitals exist for the poor; many are endowed for their service, and no more reason exists for the education authorities to make payments to hospitals than to private practitioners. The profession should appreciate the importance of this subject, and affirm their ability and readiness to co-operate. If the issue is left to chance the result will surely be serious.

Co-operation between the Medical Profession and Educationists.

Further steps should be taken to associate the whole profession more closely with those who control national education. If this were done the cultivation of sound health would be a more prominent feature and stronger generations would follow. Elementary teaching has been too much pressed forward and involved. Its form, length, and nature have been settled apart from any guidance by the medical profession. It is not contended that members of our profession are capable educationists, but I do maintain that by their experience and training they are specially fitted to lay down rules for the moral and physical training of the young. In our great public schools education is directed primarily to the *training* of mind and body—whereas, in our lower grade schools, the tendency has been to give the scholar the maximum amount of knowledge necessary to gain Government grants and local éclat, at the expense of a training so necessary to the higher development, which now meets with no reward and but scant recognition. I submit that if the medical profession had been consulted *health* and *training* would have bulked *larger* and the imparting of actual knowledge smaller, in the elementary school system. "Learning" and "training" should go hand in hand. The value of each increases fourfold when incorporated with the other. It is not easy to differentiate between the two. It may not be strictly true to say that learning is represented by those things which we remember, and training by those which we have forgotten; but it will hardly be denied that our lives are more influenced by the many things we have heard, or read, or done, which we have forgotten, than by those we have been taught and remember.

Learning may be described as a definite substance, capable of being expressed in precise terms; it can be condensed into a textbook, it is encyclopaedic in character, and its conclusions can be demonstrated on a blackboard. It is an aggregation of units of knowledge; it is perception, and *accumulated*, no doubt, *it is power*.

Training is more difficult to define; it is a subtle amalgam subject to infinite and indefinite numbers and forms of influence and environment; it matures rather than increases, it becomes an integral part of the pupil, an instinct ever ready to assert itself in emergency, in fact, guide, philosopher, and friend through life.

It is not *learning* alone, but mainly *training*, which enables the British to control millions of alien races; and in my opinion we are justified in impressing upon the public that the training of the moral sense and physical capacity should be greatly extended in our educational system.

The higher aim of education should be to fit the young to become good and healthy men and women, husbands, wives, and parents; loyal citizens and patriots.

Value of Judicious Physical Exercise.

The value of well-ordered physical exercise, of athletic games, and gymnastics, must not be overlooked as remedial agents in physical deterioration. Improperly practised violent exercise does more harm than good, and will produce evils of heart, lung, nerve, and muscle. It is dangerous to allow weak and strong children to play together indiscriminately—without classification or superintendence. Not only in public elementary schools, but in all schools, private and public, the doctor should give individual advice on these points. The value of *progressive* Swedish physical exercises is now well known, and these are taught and practised in a modified form in many elementary schools. They should be given daily instead of once or twice a week, they should be practised in the open air and during school hours, and they should be regulated by the medical officer according to the condition of each individual child.

In the army, where every soldier must be made as strong, agile, and "fit" as possible, a new system of physical training was adopted in 1907, based largely upon a Danish modification of the Swedish exercises. The main principles are *progressive* exercise—an avoidance of overtax, the harmonious working of all parts of the body, and an awakening of the intelligence of the recruit. The tricks of the gymnast and acrobat and the practice of many difficult displays, useless from the point of view of general development, have been replaced by progressive training in Swedish movements, followed by boxing, wrestling, swimming, bayonet fighting, fencing, etc. The greatest possible development is aimed at without strain. Under the old severe system, which developed muscle as rapidly as possible, young soldiers were often permanently injured. Under the new system a great improvement in the development of the recruit follows, and the number discharged from the army as physically unfit after three months' service has been considerably reduced. But in the army these exercises are carried out under the immediate supervision of the medical officer, who, having himself been through the training, regulates its application to individual needs. It is equally, if not more, important that children of every class should be under medical supervision during school life so that individual weakness may be counteracted and overstrain avoided. It is not to supersede school games that these exercises are advocated, but to supplement them. Games are of the greatest advantage, and make boys fearless, alert, and strong; but harm is sometimes done which medical supervision would prevent. In the case of girls, too, sufficient care is not exercised. Contrary to the experience of the public elementary schools, I have been able to satisfy myself from a number of examinations of boys and girls of the better classes attending preparatory and public schools that growth in both height and weight and general development takes place to a greater degree during the school term than during the holidays.

Playing Fields.

Can we, as a profession, do nothing to encourage our civic authorities to provide playing fields for the youth of our city? The Education Committees of Manchester and other large towns have made a wise concession in throwing open the school playgrounds during the summer months until dusk and during holidays. But this is not enough. The child must be less confined—more in different and fresher air. The Education Act, 1907, gives extensive

powers, and if the importance of playing fields for children is brought forcibly to the notice of the authorities something may be done in this direction. In Manchester and Salford a "playing fields society" was started a year ago. A field of 33 acres has been acquired at Gorton, where the working lads of the city play their games under kindly supervision; 800 lads can be seen there every Saturday afternoon and summer evening. The profession should give its heartiest support to such a beneficial movement. Games have always been a distinctive feature of English life, and they should take a foremost place in child training. They ensure fresh air, they cause delight, they help to form character and public spirit, and they can be made a means of promoting good physical development. Public gymnasiums should be provided by the municipality in all large towns where out-of-door exercise and field sports are difficult to obtain.

Diminishing Birth-rate and Marriage.

The serious decrease of the birth-rate in this country is intimately connected with physical degeneracy on the one hand and with the responsibility of our profession in its prevention on the other. There is a decrease in both birth-rate and marriage in all the countries of the world except Ireland, some parts of Spain, of Austria and Russia. The exceptions are due to the stronger religious beliefs held in these places regarding marriage and its objects. The birth-rate per 1,000 of population in Manchester was in 1907 only 28.3; in 1871–75 it was 38.9; in 1881 35.9; in 1891 33 8 per 1,000. Manchester is by no means worse than other towns. In Nottingham during the last twenty-five years there has been a fall in the birth-rate of 30 per cent. There are two quotations bearing on this subject which have struck me. Gibbon, in his *Decline and Fall of the Roman Empire*, alluding to the condition of affairs in the Roman Empire in the days of Constantine, writes:

> The horrid practice so familiar to the ancients of exposing or murdering their newborn infants was becoming every day more frequent in the provinces, and especially in Italy. . . . The less opulent or less industrious part of mankind, instead of rejoicing in an increase of family, deemed it an act of paternal tenderness to release their children from the impending miseries of a life which they themselves were unable to support.

The second is an extract from the report for 1907 of Dr. Niven, Medical Officer of Health for Manchester. He says:

> There can unfortunately be little doubt that the continual descent of the birth-rate is due not merely to the prevention of conception, but also in no small degree to destruction of its fruits. If so, the effect both on natural selection and on the national habits must be injurious. The offspring must also be injured in many cases by the efforts made to bring on premature labour.

Is there no parallel between these two statements? The first was the practice in declining Rome; the second is a practice in this country to-day. There are two apparent differences. The Romans were brave enough to slay their children openly, and the male committed the crime; whilst now in this country the deed is done in secret, and the male expects or allows his mate to do the gruesome deed. The decline is not due to physical but to moral degeneracy. It is a deliberate act of the will, which is depriving the country of hundreds of thousands of babies annually. It is useless to hide these facts. Every practitioner is familiar with them; they are spoken of to him without a blush—nay, he is often tempted, and with no mean bribe, to be an accessory to the act himself. Ought we not as a profession to do something to check this waste, to restore the old pride and glory that parents originally felt in the propagation of their species? We have opportunities which no one else has. But there is no doubt of the fact that the parents who should be "stocking" the empire with healthy children—the more cultured, more prosperous, wealthier, and thriftier classes of the country—are shirking their responsibility, producing fewer children, and the country will soon be swamped by the children of the only people nowadays who procreate freely, namely, those who live in the slums, and our alien population. In former years these "possible undesirables" were swept away by epidemic disease, which science is now controlling year by year more and more. By reducing mortality, preventive medicine is the means of bringing to maturity many weaklings who, in the absence of present-day knowledge, would not have got beyond early childhood, and who would not, therefore, have been able to hand on their shortcomings of weakly physique, with its want of power to withstand the strain of modern life. It is interesting in glancing through the obituary columns of old numbers of *The Gentleman's Magazine* of a hundred and fifty years ago, which was a sort of record of social and political events of any moment, to note the great number of people who died from small-pox, and to the number of women who died in childbed. As, of course, only people of a certain standing in society would come into notice, the deaths throughout the whole population from these two preventable causes and other infectious ones must have been enormous. Many of these deaths are prevented now. Families of one, two, or three children are now the rule, and they are justified or grounds of thrift and health, when really in most cases the mania for pleasure and excitement, unwillingness to suffer inconvenience, and national irresponsibility, are chiefly the causes; this must result in national degeneration. Our plea is not necessarily for large families—these are sometimes potent as factors in the cause of deterioration—but that to regulate the size of a family by any other means than mutual self-restraint and self-respect must be demoralizing and productive of harm. It is where the children cause the most inconvenience that the decline is chiefly noticeable—where married women earn wages, and where social life is most interfered with.

It should be remembered that if marriage were regulated by the State a robust race could soon be raised; but this is not feasible, and any serious interference with the process of natural selection would rightly be regarded as sacrilege, and resented by all classes.

The subject is full of difficulties. How is it possible to limit the ever-increasing number of children born to the unfit in our slums? Can some system of race culture be made fashionable, so that the finer specimens of British humanity may take pride in producing a strong and noble race?

Should not the State give privileges to those with large healthy families, and try to make the rearing of children an attractive occupation to women of a fine type? Some graduation in the income tax, privileges in connexion with education, or facilities for entering the public services might appeal to the better-to-do, and some advantages in food and clothing and in municipal employment might be an inducement to the better working class. This generation might be the losers but later ones would benefit; and if those who pay taxes have the subject brought home to them, there will be a better chance of "curbing" negligent and thriftless parents.

It is a great waste that so many of the finer specimens of our race remain "bachelors," and fail to fulfil their natural obligations, when there are two millions more women in the country than men. Undoubtedly every bachelor over 30 should be heavily taxed accerding to his income, and this tax should be used for the benefit of parents producing large families of healthy children. It must be made easier for the best types of parents to bring up their children.

The Effect of Mentally Defective Children on Race Decay.

Time is pressing, or much ought to be said regarding the relation between defective and mentally deficient and feeble-minded persons and race deterioration. There are many weak-minded people of varying degree at large; they are a danger both to themselves and the State. Without sense of right and wrong, often ill-developed, they are a constant cause of anxiety. Weak-minded girls quite commonly bring illegitimate offspring into the world, and others marry, in both cases almost certainly reproducing and perpetuating the parents' lack of mental capacity.

The education authorities are gradually making provision for the training and comfort of afflicted children in their work. In addition, many *blind* and *deaf* children are maintained in various residential institutions, and others are taught in special day schools. *Cripple children* are treated and taught in residential schools. *Mentally defective children* are accommodated in special day schools, in which the training is directed towards learning some

useful occupation. *Epileptic children* are sent to epileptic colonies, where adequate provision is made for their school instruction.

But these are makeshift arrangements, chiefly the result of philanthropy, and admission to these institutions is quite optional on the part of the afflicted people, whereas in most cases it should be compulsory. There must be powers whereby such of these afflicted persons as cause danger to the State may be placed under *permanent restraint* in well-organized and supervised institutions, where they would be safe from harm themselves, and unable to inflict it upon others. Cannot our profession bring powerful influence to bear on this matter, and press for legislation?

Overcrowding and Housing and Town-planning Matters.

Overcrowding is answerable for much of our physical degeneracy, and our profession would do well to take a more active interest in the housing and town-planning questions in our larger towns. More than 77 per cent. of our population is now urban, and the same care evinced by the more advanced Continental countries in town planning has not hitherto been shown in this country. Reforms are urgently needed in the social conditions of the poorest of our fellow-citizens. It is impossible to have strong bodies, or fresh, joyful, clean minds, when the days and nights are spent in squalid streets, and overcrowded, gloomy, sunless, ill-ventilated, filthy houses, such as many of our poorer classes are compelled or content to dwell in. No wonder the low-class but brightly-lit public-house proves an attraction. No wonder there is a lack of discipline, self-respect, and patriotic feeling in a considerable class of the rising generation. Much is being done to remedy this deplorable state of things both in Manchester and elsewhere, but if there is to be any chance for a large town to have the conditions necessary for health and strength in all its districts, or even in only its new districts, it can only be attained by the active work of the whole profession in co-operation with our health medical officers, and with the various educating societies and persons who have been striving to enlighten the public, and to obtain compulsory powers to effect these objects. The local authorities, and even Parliament itself, must be constantly impressed with the nature of, and need for, conditions of health in our towns; and it is to be hoped that the more intelligent and public-spirited will succeed in interesting the ratepayers at large in the maintenance of the conditions essential for the health and strength of the whole community. If Mr. Burns's Town Planning Bill be passed next year, the town councils will be able to insist on the provision of playgrounds and other open spaces in all new districts and the limitation of the number of houses in a district; but the town councils are not likely to use their powers at all fully unless backed up by that public opinion which we as a profession, on a subject such as this, are so well qualified to form and influence.

Societies and Associations working at Social Reform.

The various health societies whose object is to improve the condition of the people should be supported by our profession. The Manchester and Salford Sanitary Association is the oldest of its kind in the country, and has had much to do with many of the reforms which have been effected here during the last half century. How many of us take any active part in its work? Here is a pleasant field of enterprise for any of our younger members willing to labour in the great cause of physical regeneration.

There are many other kindred societies, all of which deserve our cordial support.

The beneficial effects of living under the ideal conditions provided by garden cities are strikingly shown by statistics from three well-known places. At Letchworth the average death-rate per 1,000 is returned at 4.81 and the infantile mortality at 38.4 per 1,000; at Bournville the figures are 7.5 and 80.2; and at Port Sunlight 8.0 and 65.4 per 1,000.

What has been done in Sweden by Efforts to Regenerate.

One of the most encouraging facts with regard to the possibility of restoring the health and strength of a nation is to be seen in what has happened in Sweden. Seventy or eighty years ago the Swedes were fast becoming a degenerated race, but they appreciated their condition before it was too late. They reformed their licensing system, planned their towns so as to secure much vegetation and ample open spaces, and gave the youth of the country a sound gymnastic training on the system which is now recognized to be the best. They are now the finest race in Europe, and, what is most remarkable, the men of the towns, owing to the excellence of the details that have been observed in their planning, are, as a rule, as robust and as strong as those of the country.

The Evil Effects of Impurity on Stamina.

How seldom the voice of our profession is heard in discussions concerning public morality and the remedies for checking impure habits and tendencies. These prevail in every section of society. They are all the more deadly because more secret, more insidious, more insinuating, more winked at, than any other vice. They are a cause of much immediate and future degeneracy. The strength of the race and its ability to hold its own depend very largely upon the ascendancy of the good over the bad, and the return of our people to a right moral standard. I would confidently submit that instruction ought to be given to boys and girls on sexual matters, preferably by their parents, but as this seems impossible amongst the poor, it should be done by the school medical officer. Parents are silent on this subject; it is wrapped up in an obscuring mystery, which only tends to arouse the curiosity of the child. The result is that the lessons regarding our common nature are learnt from strangers, servants, or erring and ignorant school companions. Boys and girls should be instructed on sexual matters before leaving home for school; their confidence should be invited on any point of difficulty; there should be a frankness and openness with them, so that their trust may be gained and their secrets revealed. We teach our children not to lie and not to thieve, both of which by nature they are prone to do, but regarding sexual feelings, difficulties, and sins, which as surely are natural to them, we are content to leave them in utter ignorance, without any guidance, prop, or safeguard. A tactful warning concerning the effect of bad habits on health, followed by lessons on self-restraint and the needs of others, and on the advantages of play and work, will do no harm, but will place them on their guard. "For if the youth be grafted straight and not awry, the whole commonwealth will flourish thereafter." Too great emphasis on these topics is of course to be avoided, or the very opposite effects to those aimed at may be produced, as for the attainment of the desired result love and faith on the part of the child are requisite. The prevailing notion that human passion cannot be repressed without harm is false. As practitioners of medicine we cannot be too insistent on this point, though from knowledge gained from patients it is to be feared that advice fraught with the gravest danger is sometimes given. In the classic clinical lectures by the late Sir James Paget occur the following words, which should be indelibly written in every practitioner's mind:

> Many of your patients will ask you about sexual intercourse and expect you to prescribe fornication. I would just as soon prescribe theft and lying or anything else that God has forbidden. Chastity does no harm to mind or body; its discipline is excellent; marriage can be safely waited for, and amongst the many nervous and hypochondriacal patients who have talked to me about fornication I have never heard one say that he was better or happier for it.

Effect of Venereal Disease on the Decay of the Race.

Intimately connected with the subject of natural deterioration is that of venereal disease, its prevention and cure. The prevalence of these diseases in their earlier stages is, to some extent, a gauge of the morality of the people; their ravages on men, women, and children subsequently are indications that effective treatment has not been adopted or carried out. Venereal disease is preventable; it is conceivable that it can be as surely stamped out as hydrophobia or plague, but this could only be effected with the assistance and whole-hearted co-operation of the profession, supported by the will of the people; but in adopting means to that end care ought to be taken that a definite deterioration of public morality is not involved. It is bad to have venereal disease, but it might be worse if it were escaped only by methods which rendered immorality safe and easy. Better far let us strive to eradicate it by effective

treatment on the one hand and by public education on the other, by the diffusion of the knowledge of what these diseases mean to the individual, the home, and the community, and how unnecessary it is to run the risk of acquiring them. The home, the school, the college, the church should be the media of this education. It is the prejudice against the frank discussion of these subjects, the unfortunate reserve and shyness that increase the difficulty. Venereal disease is much less prevalent in the army now than formerly. In 1860, for every 1,000 soldiers in the British army in the United Kingdom and India there were 1,053 admissions into hospital for venereal disease. In 1890 there were 196 admissions per 1,000 in the United Kingdom and 376 per 1,000 in India. In 1907 there were 71.9 admissions per 1,000 in the United Kingdom and 89.9 per 1,000 in India. This remarkable improvement is largely due to an increase in temperance in the army during recent years; but it is also due to better barrack accommodation, better clothing, better sanitation, more effective treatment. The army surgeon is more thorough, practical, and successful in his treatment of venereal diseases than is the civil doctor; it is, moreover, the custom for the former to deliver lectures to the troops under his charge on matters of personal hygiene, and concerning the dangers to himself and his country that a soldier incurs who practises illicit connexions. There are no statistics to prove, but there are ample reasons for believing, that there is no such striking decrease of venereal disease amongst our civil populations during recent years as has occurred in the army. It would be well if similar methods of diffusing knowledge could be adopted by civil practitioners.

It is interesting to note how foreign armies suffer in comparison from these diseases. In 1906 29.1 per 1,000 admissions took place in the French army, 18.8 in the German, and 158.91 in the United States army, whereas 68 per 1,000 admissions occurred in the United Kingdom. Thus in Germany and France, where legislation has provided for the supervision and examination of prostitutes, the number of admissions is three times less than in Great Britain and eight times less than in the United States. It is not, however, clear that this diminution in the disease is due so much to police supervision as to the methods of prophylaxis which are practised by German and French soldiers. In my experience the disease is so frequently spread by clandestine intercourse which no legal enactments would touch, that it is not to the official registration of prostitutes in certain towns for which the Contagious Diseases Act now repealed provided, that we can look with hope (for if legislation is to do any good it must apply to the whole community, and to men and women alike); nor is it to the *notification* of these disorders, which would only be an encouragement to "quacks," and hence to a greater inefficiency in treatment; but it is to the spread of information to men and women, youths and maidens, of all grades of society, about the prevalence and far-reaching consequences of such diseases; to the enforcing of the laws that already exist against solicitation in their application to both sexes, and in the provision of gratuitous treatment in *general hospitals*.

An international conference was held in Brussels in 1899 to consider prophylaxis in syphilis and other venereal diseases, and the foremost recommendation was a general dissemination of knowledge and information regarding the significance and prevention of these diseases—by giving instructional lectures to specially selected audiences, foremost of which should be university students, so that afterwards they could continue to spread sound knowledge on the subject.

With all respect, I would say that year by year more and more convincing facts come before me which prove that our medical schools are too sparing in their lessons on the treatment of venereal disease. The subject is regarded as a nasty one and not deserving much attention; there is no provision for the admission or treatment of these cases in the majority of general hospitals, from many of which they are excluded. And hence young practitioners are launched ill equipped to grapple with the difficult and interesting problems connected with these complaints, which have, perhaps, greater and more baneful influences on national health and upon fertility than any other diseases. Men are constantly passed as cured of gonorrhoea when still infective, and victims of syphilis are assured of their immunity either because their symptoms have gone or because they plead to be told so. There is no royal road to the cure of these diseases, and the insistent appeals of the patient to be told he is cured and can marry must be resisted. It requires both tact and firmness to convince the patient of the necessity of and to carry out long-continued and effective treatment, but success can be attained. The happy results following the treatment of cases of syphilis under my care a quarter of a century ago, many of whom are now in happy homes, surrounded by healthy children, justify our assurance in the ultimate cure of all, except very exceptionally severe cases of syphilis, and amply repay any extra trouble that these cases often require. Twenty-two years ago I read a paper before this society entitled The Evil Effects of Imperfectly Treated Early Syphilis, and later experience has more than justified the conclusions that were advanced on that occasion. Imperfect treatment means increasing physical deterioration, an enormous loss of health, and a considerable mortality to the country—a mortality infinitely greater than statistics show, because, as you know, the reports of the Registrar-General by no means give an accurate statement of the number of deaths due to syphilis in this country.

There are gross men of repulsive habits who come before us with these diseases for whom little or no sympathy can be aroused; but oftener it is the young man or girl with the saddest history towards whom our hearts go out in boundless sympathy. The fitting of such as these to take their place again in life is no inglorious task, for although marriage must often be long delayed, it *can* take place with safety and with assurance.

Effect of Universal Military Service on the Stamina of the Race.

Before concluding, attention must be called to the immense advantage that would accrue to the health and stamina of the race if a system of universal military training were enforced. This is necessary for national security and independence, both of which in the last resort depend upon the possession of adequate power to resist hostile attack. It is desirable also from the point of view of national health, and national character. There must be something wrong with the "tone" and the sense of justice and righteousness of a nation, when, out of the millions available, it is impossible to find a paltry 300,000 men willing to undergo the limited amount of training in the Territorial Force that is considered necessary to enable them to take an effective part in the defence of their homes and country. The medical profession has responded splendidly to the call—but the majority of the men of the nation hold back. What a contrast there is between the "prating" and "screaming" about the glory of the British Empire, between the "jingoism" of Mafeking Day, and the abject appeals to be seen in the press every day to induce men to join the Territorial Army, which, though in existence a year, is little more than half its authorized strength. In this public apathy to the well-being of the country, in this indifference to national honour, is a latent sign of decay and degeneracy. The existence of a State depends upon the willingness of its citizens to prepare themselves for its defence.

In the days of Roman greatness, before signs of degeneracy appeared, every Roman was a soldier and every soldier was a citizen. It has been so in England, and when it was so the name of England was never more respected and feared abroad, nor, considering the period, were the liberties of Englishmen ever more secure than when every able-bodied man in England was trained to the use of arms and thus prepared to effectually defend his country from the enemy at her gates.

On every side we hear objections to *compulsion*, and to the cost that its adoption would entail. The estimates for the latter are grossly exaggerated, and compulsion is unfortunately necessary in many less important walks of national life. That its adoption would be likely to plunge our country rashly into war is absurd. If every man were both soldier and citizen, liable himself to be called out in case of need, no Government or nation would lightly incur such a grave responsibility. Untrained men talk glibly of the martial attitude they would assume should hostile invasion ever occur, forgetful or ignorant of the disastrous consequences that would result if as civilians they implicated themselves in any act of war. Owing to our insular position, many of the horrors of war have long been

forgotten by the English people. It can be inferred, however, what would happen to our civil subjects, if foreign soldiers landed on our shore, by the behaviour of the German army to a hostile French civil population during the Franco-German war. No mercy was shown, but plunder, pillage, summary executions, burning of villages—in fact, the severest form of punishment was accorded, not only to civil offenders themselves, but whole communities were held responsible for individual actions.

The men who are so insistent on the necessity for compulsory training are not "alarmists," but calm, cautious, level-headed, experienced men, many of them England's most trusted sons. What is it they ask? It is simply this: that *all* our fellow-countrymen, physically fit, between the ages of 18 and 25, should be made to undergo four months' continuous military service, and subsequently to serve for four years in the Territorial Force, during which latter period two weeks' camp training only in each year would be necessary. What could be better for the physique and *morale* of the nation than this? It is proposed that the training should take place under canvas, not in barracks; that each man should be developed to his best by suitable exercise, food, and clothing; that he should be taught to shoot, to march, to ride; to think and act independently; to yield ready and implicit obedience to orders; to practise self-respect and good comradeship. During this time also each man would be under the care of a good doctor, specially trained, to look out for and correct the weaknesses which cause deterioration. A training such as this would have a striking influence on every class. "Duke's son and cook's son," by more intimate acquaintance, would learn a higher respect for each other. Our industries would flourish, because men engaged in them would be trained in habits of obedience, self-respect, and precision. "Overcrowding" and "our slums" would soon be gone, because, as a result of a couple of generations' training of our male population in the open air, a sounder public opinion would result, strong enough to enable our municipal authorities to remedy these crying evils.

I have watched over and over again the effect upon recruits of their first three months' service with the colours. It has been marvellous. The lank, ungainly, casual ill-developed loafer becomes an alert, strong, intelligent, orderly, self-respecting man. The good effect of even two weeks' training in camp on general health and physique is known to many of you. What would be the effect upon the character, the manliness, the physique, the patriotism of the nation if every able-bodied young man was compelled to train for the safety of his country in the open air for four months? England's sons now are of the same race as their heroic forefathers. The same blood runs in their veins as that which flowed on many a battlefield in the earlier days of Britain's history. The greatness of our country and its immense reserve of power is not denied. Will our sons prepare themselves to defend it or wait for defeat (which would mean destruction as a nation) to awaken them from lethargy? Cannot we influence the nation on the importance of this training, not only as necessary for maintaining the place and honour of Britain amongst other nations, but as essential for the improvement of our national health?

The vital question only remains: Can we as a profession take concerted practical steps to stem decay among our fellow countrymen on the one hand and to foster sound racial development on the other?

While sociologists discuss, the canker grows. While medicine works some triumphs, deterioration is spreading far and wide.

Must degeneration necessarily increase? Is our race so exhausted by the excitement and overstrain of the last few generations that she cannot recover? No; she can and will do so, as soon as the enlightenment of every class is seriously undertaken.

A lofty estimate of family life must be restored as a foundation for the re-establishment of our national life and strength.

In such an effort our part should be no ignoble one. The issue of a battle depends not alone on the intelligence of the commander, but to some extent upon the weapons he employs. In the great campaign against decay the profession of medicine should be one of the most formidable weapons. Her members have unequalled privileges. They penetrate the closed door; they are the recipients of the secrets of many a forlorn and stricken heart. Their voices find thoughtful listeners, not only in the councils of the wise, but among those whose perplexed and troubled minds would be deaf to any other guidance.

Do we shrink from the task, because we are not invited to undertake it, because the public do not realize the danger, because the exigencies of life are such that we have neither leisure nor means to fight in the battle; *or are we afraid?* I think not. Once convinced that the work must be done, our profession will be true to her traditions and resolutely wage war against ignorance and vice, giving no thought to public estimate or gain. Nay, her members will, with inexhaustible faith in the power to right much that is wrong, join heartily with those already in the field, those who have thrown their influence and their service into the scales, so that by the weight of combined opinion and by strenuous effort the balance will be found on the side of such judicious thought and fearless action as shall eventually bring about a greater and more lasting strength in our national life, health, and habits.

May I sum up my simple reflections in a sentence? He does a great deed who heals the sick; but the watchful physician who inculcates sound habits amongst a people performs a nobler task.

A Lecture

ON

FISTULA BETWEEN THE STOMACH AND BILE PASSAGES.

WITH REMARKS ON OTHER INTERNAL BILIARY FISTULAE.

DELIVERED BEFORE THE LONDON MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

BY A. W. MAYO ROBSON, D.Sc., F.R.C.S.

MY reason for selecting this subject was a remark recently made by a medical friend at a consultation we held on a case of biliary fistula communicating freely with the stomach. When I told him that his was the fifth case of biliary gastric fistula that I had personally seen, he asked me why I had not reported the cases, seeing that the literature on the subject in the ordinary textbooks was so meagre that he had been unable to get any trustworthy information on it. As a matter of fact, however, there is a chapter on fistulae in my work on *Diseases of the Gall Bladder and Bile Ducts*, though it does not deal specially with fistula between the stomach and biliary passages.

Fistulae communicating with the surface, or so-called external fistulae, are so obvious that no skill is needed in their diagnosis, but the same cannot be said of the internal or intervisceral fistulae, which, though far from uncommon, are often exceedingly difficult, or at times even impossible, to diagnose. Though they may result from the progress and breaking-down of a malignant growth, from ulceration of the stomach, duodenum, or colon, or from hydatid disease, yet the most frequent cause of internal biliary fistulae is gall stones. It is not my purpose in this lecture to consider the question of external fistulae, or of internal fistulae due to growth, but to give some of my experiences of those occurring between the biliary channels and the gastro-intestinal canal.

The channel of a fistula may be either direct, in which the two organs immediately communicate, or indirect, owing to an abscess having formed and burst into contiguous hollow viscera, which then communicate indirectly through the abscess cavity.

The former, or direct fistulae, are for the most part due to gall stones producing ulceration in the gall bladder or bile ducts, and as the ulceration advances towards the peritoneal surface a local peritonitis ensues and causes adhesions to a neighbouring hollow viscus. The ulceration continuing, a communication is established between the two channels.

Although the formation of an internal fistula is at times

dangerous from perforation, or from extension of inflammation, in some cases it effects a cure by allowing the gall stones to escape into the intestinal canal and so to be passed. In other cases, the gall stones after passing into the intestines may set up secondary troubles—for instance, when they have passed into the intestine, intestinal obstruction; when into the stomach, violent vomiting; when into the kidney, symptoms resembling those of renal calculus.

In one of my cases a gall stone lodged in the ileum and formed the centre of a tuberculous deposit leading to a stricture, which I was able to treat by excising about 18 in. of the small intestine. The patient was well some years later.

Many internal fistulae, as will be seen by the appended classification, are mere pathological curiosities, quite undiagnosable, and only capable of being discovered at the time of operation or at necropsy.

Many must form and heal, leaving the patient cured, and thus not only are they undiscovered, but they are probably not even suspected; for, contrary to what one might suppose, fistulae between the bile passages and other hollow viscera in the majority of cases heal spontaneously, leaving only firm visceral adhesions; this accounts for the fact that internal biliary fistulae are comparatively seldom found *post mortem*.

Out of 10,866 necropsies made by Roth, Schroeder, and Schloth, 43 biliary fistulae were found: 1 between the gall bladder and stomach, 19 between the gall bladder and duodenum, 16 between the gall bladder and colon, 5 between the common bile duct and duodenum, 1 between the biliary passages themselves, and 1 between the gall bladder and liver.

I do not think that any complete collection of all the published cases of fistulae has been made since the work of Courvoisier and Naunyn, but even that can only give a very imperfect estimate of their frequency, for the reasons I have stated.

Published Cases of Internal Biliary Fistulae (Courvoisier and Naunyn).

Fistulae between the biliary passages themselves			8
,, ,,	biliary passages and the stomach ...		12
,, ,,	stomach and the liver	4	
,, ,,	stomach and the gall bladder ...	8	
,, ,,	biliary passages and the duodenum ...		108
,, ,,	duodenum and common bile duct	15	
,, ,,	duodenum and gall bladder ...	93	
,, ,,	jejunum and the gall bladder		1
,, ,,	ileum and the gall bladder		1
,, ,,	biliary passages and the colon ...		50
,, ,,	colon and the gall bladder ...	49	
,, ,,	colon and the common bile duct	1	
,, ,,	biliary passages and the urinary organs		6
,, ,,	biliary passages and the thoracic organs		10
,, ,,	biliary passages and the abdominal walls		184
,, ,,	biliary passages and the retroperitoneal tissues		4
			384

Usually the ulceration leading to fistula proceeds quietly and painlessly, producing very few symptoms until, it may be, a gall stone sets up obstruction in its passage down the intestinal canal; or, after the formation of a fistula, all the symptoms pass away and the patient makes a complete recovery. If, however, other gall stones have been present and have not escaped through the fistula, but passed into the cystic or common ducts, the symptoms are likely to recur when the fistula contracts, as in the following case:

CASE I.

History.

Mr. L., aged 50, had been subject to painful attacks called indigestion from the age of 14 to 16, but he had been free from seizures for eighteen years—that is, until sixteen years ago, when acute pain was felt, followed by jaundice and associated with fevers and rigors. Since that time he had had similar attacks at varying intervals, but lately there had been five or six severe seizures in rapid succession accompanied by rigors, continued fever, and increase of jaundice. When seen by me the liver was 1½ in. below the costal margin, but no tenderness could be detected anywhere. A slight icteric tinge was present in the conjunctivae. The attacks appeared to have been brought on by gastro-duodenal catarrh extending to the common bile duct and to the pancreas. A diagnosis of gall stones in the common duct was made and an operation advised.

Operation.

On January 29th, 1903, the gall bladder was found firmly adherent to the surrounding structures, and was separated with difficulty. A fistula between the gall bladder and the duodenum was thus exposed, and after separating the gall bladder, the opening in the duodenum was closed by a purse-string suture. Two stones were felt in the pancreatic portion of the common duct, and there was also some swelling of the head of the pancreas. The stones in the duct were extracted by the scoop after incising the duct. No more stones could be detected in the ducts, and a probe readily passed down into the duodenum. The gall bladder was small and contracted, and the cystic duct was strictured at the junction with the common duct.

Cholecystectomy was performed, and the hepatic duct was drained by a tube passing through the incision in the duct, which was closed around it by a catgut suture. A gauze drain was passed down by the side of the tube and the wound closed.

The patient made a good recovery, and is now well.

The sequence of events in this case clearly pointed to gall stones, then to the escape of some by ulceration. So long as the fistula remained freely patent, there was an absence of symptoms, as there was no back pressure in the bile ducts, but as soon as the fistula narrowed the gall-stone troubles returned.

CASE II.

History.

A similar sequence of events occurred in another case that I saw in September, 1903, where there was also a twenty years' history of gall stones, though during the previous four years the attacks had been more frequent, and for nine months there had been slight jaundice with symptoms of infective cholangitis.

Operation.

In this case not only was there found a fistula between the gall bladder and duodenum that had resulted from the ulceration of a gall stone into the duodenum many years previously, but there were also gall stones in the gall bladder and in the common duct. So long as the fistula was freely open, the patient had been free from jaundice, but as soon as the fistula contracted—for at the time it had become very small and would no longer allow the bile to escape—jaundice supervened, and the damming back of infected bile into the bile ducts was the cause of the infective cholangitis. The removal of the gall bladder and calculi, the closure of the opening in the duodenum, and drainage of the bile ducts resulted in complete and permanent recovery.

But the presence of gall stones is not necessary for a recurrence of the pain, as in the following case:

CASE III.

Miss H., aged 55, seen on November 23rd, 1904, on account of attacks of pain in the region of the gall bladder, which had been continuing off and on for ten years.

History.

The patient gave a history that about twenty years previously she had been very seriously ill with intestinal obstruction, and had passed some large gall stones, which fortunately had been retained, and which she showed me. For ten years she was well. She said that then she began to again suffer from occasional attacks of pain in the gall bladder region, which attacks had recently become more and more severe, though they were never accompanied by jaundice.

Operation.

On December 1st, 1904, I removed a contracted gall bladder, in which a cavity that would hold a large pea was communicating with the duodenum by a very minute channel that would only admit a No. 1 catheter. The cystic duct was completely strictured. After the removal of the gall bladder and closure of the duodenal opening she made a complete and satisfactory recovery.

The case is interesting from the fact that the gall stones had evidently ulcerated their way into the duodenum twenty years before my seeing her, that so long as the fistula was widely patent no trouble was experienced, but, as soon as the fistula began to contract, mucus collecting in the remains of the gall bladder gave pain in its passage into the bowel along the fistula, as the contents of the gall bladder could not escape into the common duct on account of stricture of the cystic duct.

Symptoms of Formation of Fistula.

Although the ulceration may at times occur quietly and without any serious disturbance to health, it is not always accomplished without symptoms, such as pain beneath the right costal margin, more or less continuous fever of an irregular type, possibly associated with rigors and other symptoms pointing to infection. On examination there will be found rigidity of the right rectus, distension of the

upper abdomen, owing to paresis of the stomach and colon, and possibly the presence of a tumour due to matted omentum and swollen and adherent viscera.

Haemorrhage into the stomach or intestines may occur from ulceration into a large vessel while the fistula is forming, or subsequently, and in one case reported to me by a friend the haematemesis proved fatal.

If the fistula occurs between the stomach and the gall bladder the stones may be vomited, as in two cases I have seen; but it does not follow that vomited gall stones come from a gall-bladder-stomach fistula, as in one reported case the patient died after the vomiting of gall stones, and at the necropsy a fistula was found between the cystic duct and the duodenum.

If the gall stone is of large size, as in a case that I will relate, it may remain in the stomach, producing great irritation with vomiting, and leading to symptoms of intestinal obstruction.

If the fistula is between the gall bladder and the duodenum (the most common variety), the whole length of the intestinal canal has to be traversed by the concretions, hence such cases are found to be more frequently associated with intestinal obstruction than when the fistula occurs between the gall bladder and the colon, for in the latter case the passage to the anus is usually accomplished without difficulty, though occasionally the concretions may lodge and cause trouble.

When a gall stone is impacted in the common duct just before entering the duodenum or in the ampulla of Vater, ulceration of the orifice of the duct is apt to occur, allowing the concretion to escape into the duodenum by an enlargement of the orifice of the papilla. There is also the possibility of a direct fistula developing between the common duct and the duodenum, instead of ulceration of the ampulla. Such gall stones are of moderate size, seldom larger than a filbert, and rarely give rise to any other trouble in passing through the intestine.

Intestinal Obstruction due to Gall Stones.

It must not be assumed that all cases of intestinal obstruction due to gall stones are dependent on gall stones ulcerating through the walls of the biliary tracts, though this is the ordinary explanation.

By intestinal obstruction from gall stones is usually understood the impaction of a large concretion in some part of the small intestine producing a mechanical block; but this is only one of the several varieties of obstruction of the intestines dependent on cholelithiasis. There are clearly four classes of obstruction depending essentially on gall stones:

1. Acute obstruction caused by local peritonitis in the region of the gall bladder leading to paralysis of the bowel. Of this variety I have seen several examples, all of which recovered without operation.

2. Volvulus of the small intestine, dependent either on the violence of the colic caused by the attack of gall stones or on the contortions induced by the passage of a large concretion through the small intestine. In two cases of this kind operation was performed, recovery following in each after simply untwisting the volvulus.

3. Mechanical obstruction due to the passage of a large concretion through the small intestine.

4. Obstruction coming on after the original cause has disappeared, and depending on adhesions left by local peritonitis due to gall-stone attacks, or on narrowing caused by the healing of a fistulous opening through which a large gall stone has made its way into the intestinal tract.

Gall-bladder-duodenal fistulae are not at all uncommon. I have operated on eight. There are a number of good specimens in the various pathological museums, for instance:

No. 2826, Royal College of Surgeons Museum, shows a gall stone in the act of extrusion, and it will be seen that the margins of the opening are ulcerating to allow of the passage. Death occurred after six weeks of suffering.

Specimens Nos. 2827 and 2828 in the same museum are also good examples.

No. 1399 in Guy's Museum shows a gall-bladder-duodenal fistula 1 in. from the pylorus, large enough to admit the finger; and 33 in. above the ileo-caecal valve is a large gall stone impacted in the ileum.

Nos. 2261 and 2262 in St. Bartholomew's Museum show gall-bladder-duodenal fistula.

No. 1676 in King's College Museum shows a gall-bladder-duodenal fistula. Death occurred from peritonitis, though the gall stone had passed per anum.

No. 1595 in the Middlesex Museum shows a gall-bladder-duodenal fistula, through which gall stones passed. Death occurred from intestinal obstruction.

Specimens of gall-bladder-colic fistulae are much less common than duodenal fistulae, probably because they do not often cause death. I have operated on four. There are, however, a sufficient number of examples to show that even this method of passing gall stones is not altogether a safe one.

CASE IV.—*Gall-Bladder-Colic Fistula.*

Mr. G., aged 50, seen with Dr. W.

History.

There was no history of spasms: the first attack of gall-stone colic occurred in October, 1897, followed by jaundice; severe seizures in December, 1897, with jaundice lasting two months and associated with ague-like seizures; slight attacks for a year, and then one very severe in December, 1898, and again in January, 1899. During the whole of the period the icterus deepened after each attack, and occasionally rigors occurred; lost over a stone in weight; jaundiced, but not deeply; liver not enlarged; no tumour of the gall bladder; tenderness above and to the right of the umbilicus; well-marked dilatation of the stomach.

Operation.

January 28th, 1900. Fistula between shrunken gall bladder and colon discovered; cystic duct shrunken; common duct dilated to size of small intestine, and containing large floating gall stone. After excising the gall bladder an incision was continued down the shrunken cystic duct until it reached the dilated common duct; a gall stone was crushed in removing it and the fragments were removed; tube introduced into common duct; fistulous opening into colon closed.

The patient made an uninterrupted recovery and remained well for six years.

As showing the importance of recognizing the presence of even a small fistula when separating adhesions, I had the experience some years ago of missing a minute fistula into the colon when separating very dense visceral adhesions, the result being escape of the visceral contents and peritonitis.

Biliary gastric fistula is apparently less common than one might expect, seeing that the pylorus is not infrequently fixed to the gall bladder by adhesions. The following is the description of a chronic case:

CASE V.—*Biliary Gastric Fistula.*

A lady, aged 60, suffered from constant dyspepsia, with frequent vomiting and steady loss of flesh.

Operation.

The stomach was found firmly adherent to the gall bladder, and on separating adhesions a fistula between the gall bladder and stomach was found. The edges of the fistula in the stomach were pared and the opening closed with two rows of sutures, while the opening in the gall bladder was utilized for removal of the gall stones and afterwards for drainage. The patient made an excellent recovery, and is now in good health.

In this case the discharge of septic bile into the stomach proved a constant source of trouble, leading to nausea and vomiting and giving rise to chronic septic absorption and a suspicion of malignancy.

The proposal, therefore, in obstructed common duct to drain the bile passages into the stomach seems to me undesirable.

CASE VI.—*Gall-Bladder-Gastric Fistula Operated on in the Acute Stage.*

On the evening of October 29th, 1906, I was asked by a surgical friend to see an urgent case with him about ten miles from town, the patient, a gentleman of 76, being very ill with symptoms of acute intestinal obstruction.

History.

He gave a history of having been perfectly well up to October 26th, on which morning he went out for a walk. Later in the day he was suddenly seized with acute pain in the upper part of the abdomen, slightly to the right side, and almost immediately began to vomit, first the contents of the stomach and afterwards mucus and any fluid that he took. The vomiting was repeated frequently, but at no time did it contain bile. The abdomen became somewhat distended, though more markedly at the upper part. Acute intestinal obstruction was diagnosed, and all food by the mouth was stopped, as even a little fluid was rejected, and the patient was fed only by nutrient enemata. On October 29th the vomiting continued, and the nutrient injections could not be retained.

When I saw him on October 29th I found the abdomen somewhat, though not enormously, distended, and a distinct, hard swelling could be felt beneath the right costal margin. The stomach was dilated and the ascending colon and caecum were

also manifestly more distended than the descending colon. Examination by the rectum showed well-marked ballooning. The urine was scanty but contained no albumen. The tongue was dry and the pulse quick, but the temperature was only a little above normal. There had never been any symptoms of gall stones, nor had he been specially troubled with constipation up to the onset of the acute seizure. The bowels were slightly moved as the result of an enema on Sunday and a little flatus was passed on Monday, but no decided relief resulted.

A diagnosis was made of obstruction at the pylorus and also at the hepatic flexure of the colon, the cause being probably a growth in the region of the gall bladder involving at the same time the stomach and bowel. The possibility of a gall stone ulcerating into the bowel was considered, but not thought to be probable, as there had never been any history whatever of gall-stone attacks in the past. An operation was proposed, but for family reasons could not be carried out until the following morning.

Operation.

On opening the abdomen the stomach and hepatic flexure of the colon were found firmly fixed to the under surface of the liver, and beneath them could be felt a hard swelling. On palpating the stomach a hard lump the size of a small hen's egg could be felt in it, and as this could be freely moved in the stomach cavity it was evidently a concretion.

It at once became clear that the patient had been suffering from cholecystitis due to gall stones, that one had ulcerated through into the stomach, and that another was probably ulcerating into the colon. After packing off the abdominal cavity by sterilized gauze, the stomach and colon were rapidly separated from the under surface of the liver and gall bladder, the pus and mucus which escaped being mopped up by gauze swabs. A fistula was exposed passing between the gall bladder and pyloric end of the stomach, and another was found between the gall bladder and colon. Through the former the large gall stone had passed into the stomach; in the latter the smaller gall stone was impacted, it not yet having effected its escape. The opening into the stomach had to be extended a little in the direction of the pylorus before the gall stone could be extracted, after which the stomach opening was closed by stretching open the sides of the fistula so as to bring the edges together transversely to the axis of the pylorus as in pyloroplasty. A No. 1 chromicized catgut suture was employed to bring the edges of the fistula together, and a Pagenstecher's suture brought together the serous surface. Attention was next directed to the opening in the colon, which was closed by a purse-string suture, after which the gall bladder was excised and the cystic duct ligatured beyond another small gall stone which was impacted in it.

After purification of the region of operation, the right kidney pouch was drained by a strip of gauze enclosed in an india-rubber tube and brought through a stab opening at the most dependent part. The abdominal wound was then closed by a continuous catgut suture, uniting the peritoneum and posterior aponeurosis, it being continued back along the anterior aponeurosis and sheath of the rectus, the union of the wound being strengthened by three silkworm gut sutures transfixing all the layers of the abdominal wall. The skin edges were brought together by Michel's clips. Five minims of strychnine were given subcutaneously, and a pint of saline with an ounce of brandy was administered by rectum and repeated in two hours.

After-History.

The operation, which occupied about half an hour, was completed with the patient in good condition. After the operation he had no further sickness, and the pulse during the next day did not exceed 100, nor was the temperature above normal. Flatus was passed on the second day, and the patient took plenty of fluid nourishment.

On November 2nd the pulse became more rapid and slight delirium was reported. From this time, although the wound progressed satisfactorily, he became excited and restless, and for some time his mental condition gave rise to anxiety, but eventually, as he got stronger, the mind completely cleared, and at the present time he is in perfect health both physically and mentally.

The measurement of the largest calculus removed from the stomach was 3½ by 3 cm. in diameter, and that of the smaller one 2.3 cm. by 2.3 cm. The smallest crumbled after removal.

CASE VII.

Last year I was asked to see a very interesting case by an eminent surgeon who had removed gall stones from the common duct, and at the same time he had had to remove the gall bladder which was the site of phlegmonous cholecystitis. Silk ligatures had been employed, as is the custom I find with a number of surgeons. A biliary fistula followed, and after a time the fistula began to discharge some of the stomach contents very shortly after food or fluid had been taken. My explanation of the case was that a silk ligature had ulcerated its way from the biliary passages into the stomach, and that probably the fistula would close if the tube was left out, as from the small amount of bile that had been discharged all along it was quite clear to me that there was no permanent obstruction of the common bile duct.

I was gratified to learn a few weeks later that the patient was quite well, and that within a week of leaving out the tube the fistula had permanently closed.

I cannot but think that the use of silk ligatures at any operation on the biliary passages is fraught with risk of subsequent trouble, as it is universally recognized that in nearly every case where gall stones are present the bile contains septic organisms. Thus, if silk is used, it is likely to become infected, and so form an infected centre until it is discharged; moreover, an ample experience of the use of carefully prepared iodized catgut has convinced me that it is both safe and efficient, lasting a sufficient time in the tissues to effect its purpose, but not remaining longer than necessary.

On two occasions in which I have operated for disease of the gall bladder I have found it distended with gas; this unusual phenomenon was in both cases dependent on a fistula between the intestinal canal and the gall bladder. I will give brief notes of one case.

CASE VIII.—*Gall Bladder Distended with Gas.*

On October 10th, 1906, I was asked to see a lady aged 59.

History.

In 1889, after years of suffering from abdominal pain, she had passed several large gall stones. Relief followed, but she never completely regained her health, and six months before I saw her she began to have pain in the upper abdomen, with partial obstruction of the bowels. The pain, which was paroxysmal, was followed by rigors, but without jaundice. There was marked tenderness and some swelling below the right costal margin, and distinct rigidity of the right rectus. Though there was a tumour to be felt on palpation, it was resonant on percussion. A diagnosis was made of cholecystitis with ulceration, and it was suggested that there might be a fistula between the gall bladder and bowel, through which infection had passed to the gall bladder, setting up chronic septicaemia. At the operation very firm adhesions were found binding the viscera together below the liver. The gall bladder had thickened walls, and it was distended with gas, there being a communication between it and the duodenum. Cholecystectomy was performed, and the wound in the duodenum was closed by a purse-string suture. The patient made a good recovery, and when heard of some time later was in good health.

On several occasions I have had the good fortune to catch gall stones in the act of forming fistulae. In one case I found a gall stone half extruded through an ulcerated opening into the peritoneal cavity. Had operation been delayed a fatal peritonitis must have ensued, as the distal extremity of the concretion was free in the peritoneal cavity and was firmly plugging the opening, behind it being a gall bladder distended with muco-pus. The patient, a middle-aged man, recovered after cholecystectomy, and was living some years later. In one case I found a gall stone ulcerating into the colon and plugging the opening between the gall bladder and the colon.

Double fistulae are occasionally found. I have related one case in which a gall-bladder-gastric and a gall-bladder-colic fistula existed in the same individual, and others have been recorded where at the same time fistulae between the various parts of the biliary passages and the duodenum and colon have been found.

The fistulae I have thus far mentioned have all had their origin in the bile passages, but I have also had experience of intervisceral biliary fistulae in which the origins have been from without the bile tracts—for instance, in cancer of the colon and stomach, and in hydatids of the liver bursting into the gall bladder and bile ducts—producing symptoms resembling in every way those of cholelithiasis.

I have also known ulcer of the duodenum and ulcer of the pylorus to perforate into the bile passages.

In the time at my disposal it is impossible to cover the whole of the ground; for instance, it would be interesting to relate examples of communications between the urinary tract and the bile passages, of which a number have been reported; in some of them gall stones had been passed by the urethra, and in others crushed in the bladder by the lithotrite or removed by lithotomy. Gall stones may enter the urinary tract either by direct ulceration into the pelvis of the kidney, or through a track extending along the round ligament to the umbilicus and then along a patent urachus, as in a case described and operated on by Krönlein.

Fistulae between the bile passages and genitals are also interesting, as, for instance, between the gall bladder and pregnant uterus, or between the gall bladder and an ovarian cyst, or between the bile passages and vagina, all of which examples have been recorded in literature.

Again, fistulae have occurred between the common or hepatic duct and the portal vein; four such cases have been recorded. I have on several occasions seen and operated on communications between cavities in the liver and the pancreas and the bile ducts, the communication being through a fistula established by ulceration.

Nor will time permit me to describe, except briefly, that interesting class of cases in which communications have been established between the bile tracts and the thoracic organs, the pericardium, the pleura and lungs.

Courvoisier collected 24 such cases of fistula between the biliary tracts, pleura and lung. Very few have been submitted to operation. I had a very interesting case of this kind sent to me from South Africa in May, 1903, of which the following are brief notes:

CASE IX.

History.

Mr. G., aged 28, was quite well up to April, 1894, when he had an illness accompanied by a cough, and on the third day he began to expectorate; shortly afterwards he coughed up a large quantity of pus and bile. Before this attack he had had no liver symptoms, except that on one occasion he had had pain in the gall-bladder region, which, it was surmised, might be due to gall stones. Since that time, for a period of nine years, he had regularly coughed up bile and pus. At first he was thought to be suffering from phthisis, especially as he lost flesh rapidly and had night sweats. During the year before coming to England he thinks he did not get thinner, though the amount expectorated did not lessen. When I saw him he was round-shouldered and old-looking, as if worn down by illness, and his fingers showed marked clubbing. An examination of the chest showed no positive sign of lung disease, though the breath sounds were diminished on the right side up to the level of the seventh rib. The liver was decidedly enlarged but not tender, and projected 3 in. below the costal margin. There was slight jaundice. From 1 to 1½ pints of extremely offensive bile and pus were coughed up in the twenty-four hours. The pus was crowded with bacteria but did not contain tubercle bacilli or elastic fibres, and was manifestly not from a bronchiectasis.

Operation.

Operation was performed on May 21st, 1903. No cyst or abscess cavity was discovered in the liver, which was enlarged, and showed signs of cirrhosis. After numerous firm adhesions between the shrunken gall bladder and the under surface of the liver, and the stomach, duodenum, and colon had been separated, a gall stone the size of a small nut was found impacted in the hepatic duct, and removed through an incision in the duct; numerous adhesions fixed the back and the dome of the liver to the diaphragm. Drainage of the hepatic duct was effected by a rubber catheter, and a gauze drain was passed through a split rubber tube to the neighbourhood of the incised duct. The expectoration of bile was immediately arrested but offensive pus continued to be coughed up. The expectoration of bile returned on the third day and then gradually lessened; the cough also gradually became less, and the purulent expectoration rapidly diminished. The wound healed by first intention except where the tube had been, this healing by granulation.

After-History.

Two months later the patient had improved very much, was gaining weight rapidly, and was only coughing up a small quantity of muco-pus without any bile. There was no jaundice, and all the bile was passing into the bowel. The wound had been soundly healed for a month, and he had been able to walk several miles a day. He returned to South Africa in the third month, and has since reported himself well.

Mr. Rigby also reported an interesting case in the BRITISH MEDICAL JOURNAL of August 8th, 1903, which was dependent on impacted gall stones and cured by cholecdochotomy. Out of 18 autopsies collected by Courvoisier, 10 were due to gall stones, 6 to hydatids, and 2 to ascarides. It may, however, also be due to tropical abscess or to abscess of the liver from other causes.

CONCLUSION.

It may be asked what purpose can be served by relating a large series of unusual cases. Quite apart from the interest attached to these cases, to the difficulty of diagnosis, and the possibility of their cure by operation, I should like to dwell on the fact I have so often mentioned before as to the serious responsibility of allowing gall-stone disease to pass on until complications such as those I have mentioned have supervened, since operation for cholelithiasis at a time before the gall bladder and bile ducts have become seriously damaged, and the neighbouring organs have participated in the trouble, is almost devoid of danger if the operation be performed by an experienced and careful surgeon; whereas, if operation is only done after the parts have become matted together, after fistulae have formed and the patient is run down by fever and other septic complications, the mortality will be greatly increased.

AN UNUSUAL CASE OF APPENDIX ABSCESS DUE TO THE PNEUMOCOCCUS AND BACILLUS COLI COMMUNIS.

TREATMENT BY DOUBLE VACCINE: RECOVERY.

BY EDWARD HARRISON, M.A., M.D., F.R.C.S.,
HONORARY SURGEON TO THE HULL ROYAL INFIRMARY.

WITH OPSONIC ESTIMATIONS AND VACCINE TREATMENT
BY EDWARD TURTON, B.Sc., M.D., M.R.C.P.,
HONORARY PHYSICIAN TO THE HULL ROYAL INFIRMARY.

THE case seems worthy of record not only on account of the unusually serious surgical conditions which had to be dealt with, but because distinct benefit appeared to be derived from the vaccine treatment during the time that the patient was so desperately ill from toxaemia. It would appear also that, as has been frequently insisted on by one of us (E. T.), in order to effect most good by bacterial vaccines, it is advisable to use a vaccine prepared from the organisms isolated from the patient's own pathological discharge, even if, as in this case, separation of the organisms is by no means an easy task.

S. H., a woman aged 27, was admitted to the Hull Royal Infirmary on June 10th, 1908, under the care of Dr. Turton.

History.

She had been ill for three weeks, with abdominal pain, general malaise, and headache. A week before admission the pain had become more intense, and was accompanied with vomiting, which persisted until admission, but was said never to have been faecal. The bowels had been open quite regularly, and there had been no diarrhoea. There was no history of previous attacks of pain, and menstruation had been regular.

Condition on Admission.

The patient was obviously very ill; her expression was anxious and her complexion earthy. The pulse was 130 per minute and very feeble, tongue dirty and dry, and respirations 24 per minute. She complained of pain all over the lower part of the abdomen, which moved slightly on respiration. Palpation of the abdomen was difficult on account of the large amount of abdominal fat; a large mass could, however, be felt below the umbilicus somewhat to the right of the middle line. It was dull on percussion, tender, and appeared to be freely movable. Nothing definite could be made out vaginally or per rectum. A provisional diagnosis of ovarian cyst, with twisted pedicle, was made by Dr. Turton and immediate operation advised.

First Operation (by Dr. Harrison).

Chloroform being administered, the abdomen was opened by an incision in the middle line, the incision being a somewhat lengthy one, on account of about 3 in. of fat which had to be cut through. On opening the peritoneum, a large mass was seen occupying the right iliac fossa and pelvis, and an effort was made to free it from the coils of intestine which were extensively adherent to it. The patient was placed in the Trendelenburg position and the upper abdomen packed off. An attempt was then made to isolate the mass by separating the adhesions, and it was seen that the greater part of the tumour was made up of matted mesentery. On working down in the pelvis, a gush of offensive pus was observed; this was mopped out and the patient placed in the horizontal position again. Owing to the great thickness of the abdominal parietes, it was now necessary to make an additional transverse incision dividing the right rectus. On further separation of the coils of the small intestine, the caecum was found in the abscess, with the stump of a ruptured and gangrenous appendix. This was removed, and, together with some pus and a soiled swab, was placed in a sterile tube for bacteriological examination by Dr. Turton. Drainage tubes were passed into the pouch of Douglas and the wound closed. On recovering from the anaesthetic, the patient, who was in a precarious condition, was placed in the Fowler position.

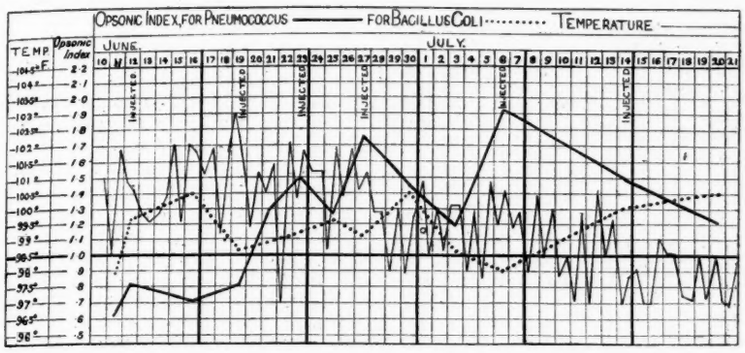
Progress.

The patient remained in an extremely critical condition for several days after the operation; the pulse was rapid and very feeble, and there was evidently severe toxaemia, although there appeared to be free drainage from the tubes. The result of the bacteriological examination had been to show the presence in the pus of the pneumococcus and *Bacillus coli communis*, and the opsonic index was estimated the day after operation and found to be 0.62 for the pneumococcus and 0.87 for the *Bacillus coli*. On the next day, June 12th, the indices were respectively 0.81 and 1.22, and a vaccine was given, consisting of 50 millions of *Bacillus coli*, made from a culture grown from the pus, and 10 millions of a stock vaccine of pneumococcus. There appeared to be very little improvement in the patient's condition, and the opsonic indices taken on June 16th showed the index for the pneumococcus to be still as low as 0.71, though the *coli* index was 1.4.

On June 18th there was found to be a reaccumulation of pus, and a counter incision was made above the crest of the right

ilium and a drainage tube inserted. Through this tube there was free irrigation with Wright's sodium citrate and saline solution.

On the following day, June 19th, the pneumococcic index was low, 0.81, and the *coli* index 1.05; a vaccine of 25 millions pneumococci and 50 millions *Bacillus coli* was injected, both organisms on this occasion, and subsequently, being isolated from the pus obtained at the time of operation. A rise in the opsonic power of the blood for the pneumococcus took place, and it was not again found below normal. Concurrently, the



patient's condition improved, the temperature became lower, the pulse less rapid though still very feeble, and the purulent discharge gradually ceased, though not before there had been a considerable amount of sloughing of the wound margins. On July 6th it was first noticed that a faecal fistula had formed, and the patient suffered great distress from the excoriation of the skin in the neighbourhood of the wound.

The range of the opsonic index for the two organisms can be well seen on the chart, and also the dates on which the injections of the two organisms were given, the amounts of which were as follows:

Date of Blood Examination or Injection.	Opsonic Index for Pneumococcus.	Opsonic Index for *Bacillus Coli*.
June 11th, 1908 ...	0.62	0.87
June 12th	0.81	1.22
„ „	Injected 10 millions	Injected 50 millions
June 16th	0.71	1.4
June 19th	0.81	1.05
„ „	Injected 25 millions	Injected 50 millions
June 21st	1.28	—
June 23rd	1.5	1.14
„ „	Injected 20 millions	Injected 40 millions
June 25th	1.27	1.22
June 27th	1.75	1.13
„ „	Injected 30 millions	Injected 60 millions
June 30th	1.46	1.4
July 3rd	1.19	1.14
July 6th	1.92	0.9
„ „	Injected 15 millions	Injected 30 millions
July 14th	1.5	1.3
„ „	Injected 20 millions	Injected 40 millions
July 20th	1.21	1.4

After the date of the last opsonic estimation the patient's condition was so satisfactory, except for the presence of the faecal fistula, that it was not considered necessary to give further injections of bacterial vaccines, and hereafter the treatment was of a surgical nature.

On July 26th she was taken to the operating theatre and the wound examined under an anaesthetic with the view of closing the fistula. The opening in the bowel was nearly the size of a shilling and as the patient was not in a condition to bear a prolonged operation, a purse-string suture was passed round the opening and a closure made. This, however, broke down again in the course of a day or so, and the condition was as bad as ever, except that the skin had improved around the wound.

Her general condition subsequently improved greatly, she took her food well and gained weight. Though the patient desired that the fistula should be closed it was wished to postpone this for a time in order to allow of absorption of adhesions.

Operation for Closure of Faecal Fistula (by Dr. Harrison).

On September 28th after chloroform had been administered, an incision was made to the left of the discharging sinus, after the opening in the bowel had been plugged with gauze. Except close to the faecal opening there were found to be few adhesions, so a transverse incision was made and the structures forming the abdominal wall divided with scissors round the opening in the bowel. The loop of intestine was then freed, and the opening, which was as large as a shilling, sutured in the transverse axis of the bowel with Lembert sutures. When this was completed the packing which had been placed round the site of the operation was removed, the part was then swabbed over and the abdominal sutures were about to be inserted when a great gush of intestinal fluid was seen in the wound. When this was swabbed up it was found that there was a second, very large opening in another coil of bowel situated rather deeply in the right iliac fossa. Fresh packing was then inserted and the rent carefully examined, when it proved to be a much larger opening than the first, triangular in shape and involving almost the whole circumference of the gut. The opening being so large and irregular and so deeply seated it was with great difficulty that a double row of sutures were inserted to close it. The whole operation lasted nearly two hours and the patient bore it much better than had been anticipated, although saline infusion and strychnine injections were thought necessary.

After the operation the patient's progress was uninterrupted. The openings in the bowel proved to have been satisfactorily closed and there was no further faecal discharge. The large wound filled with healthy granulation tissue and was quite healed when the patient left hospital on November 12th. The bowels were then acting quite regularly. She is at the present time quite strong and well.

THE INDICATIONS FOR NEPHROPEXY.*

BY

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THIS paper is the outcome of an experience of 150 cases upon whom I have operated for movable kidney during the past three years. First, it is necessary to refer to the surgical results, for these must be taken into account when discussing the indications for operation. The operation performed I have already described at length in the BRITISH MEDICAL JOURNAL of November 29th, 1907. In 96 cases one kidney only was fixed, while in 54 both were dealt with at the same time. Few changes have been made in the technique. I now use kangaroo tendon, medium size, instead of silk for suturing the capsular flap in place. This avoids the leaving of any non-absorbable material in the wound. Drainage of the cavity below the kidney by means of a strand of gauze is employed in every case. The gauze is removed in forty-eight hours. This prevents the accumulation of serum, and appears to diminish post-operative discomfort. At the end of the month, when the patient is allowed to get out of bed, a special belt is supplied. This belt is worn for six months. It is shaped to clear the hips and come down in front as low as the pubes. Just internal to each anterior superior spine are placed two soft pads covered with wash-leather. The object of this belt is to exert pressure over the lower abdomen in such a way as to push the intestines up towards the kidneys. The small pads give a little extra pressure immediately below the kidneys. The belt was made for me by Messrs. Salt, of Birmingham. The diagrams sufficiently explain its main features.

In my original paper I stated that where both kidneys are movable it is better to operate on one rather than both. My reasons for this statement were that the risk to life was less and the improvement which followed the single fixation was so marked that a second operation was rarely necessary. Extended experience has led me to correct this view, and I now know that when both kidneys are movable it is better practice to fix both. The double operation does not add materially to the risk, increases the prospect of complete cure, and spares the patient the possibility of a subsequent operation. It has been a surprise to me to find that double nephropexy is followed by no more shock or general disturbance than the single operation.

* A paper read before the Midland Medical Society.

The surgical results of nephropexy have been very satisfactory. Of the 206 kidneys dealt with, not one, to my knowledge, has become loose again. On one occasion, eight months after operation, I found a movable lump in the right side, which I thought was the right kidney. This opinion was confirmed by several observers. As the patient, though better, was not well, I decided to refix the kidney. On opening the loin, however, the kidney was found to be firmly tethered in its proper position, and the lump which was felt before operation was found to be a freely movable Reidel's lobe of the liver which was attached to the rest of the liver by fibrous tissue only. It was interesting to see that the capsular flap over the rib had become thickened into a strong band of fibrous tissue ½ in. wide and ¼ in. thick. I have never had a permanent sinus of the back, a hernia, or weakness of the scar. Amongst the 150 cases there have been two deaths.

I have already recorded the first, which occurred in the case of a man operated on during an attack of mania. He went on very well for three days, but died on the fourth day in a state of collapse. There was no apparent cause for his death, and a *post-mortem* examination failed to show why he died.

The second case was that of a flabby woman who had been a semi-invalid for eighteen years. Both kidneys were found badly displaced. The wounds healed by primary union, and she was thought to be nearly well. On the fifteenth day, after a heavy sleep, she woke up complaining of pain in the chest and a feeling of suffocation, and died in a few minutes. The probable cause of death was cardiac thrombosis.

These deaths emphasize the fact that no major operation is free from risk. They might, however, have occurred after any major operation performed on the same individuals. I have had no mortality from shock, haemorrhage, sepsis, or uraemia, which may be regarded as risks special to operations on the kidneys. With a full sense of the responsibility attaching to my statement, I say that nephropexy is as safe and as satisfactory a surgical procedure as radical cure of hernia. If it can be shown that in properly selected cases nephropexy is followed by real improvement as regards the health and working efficiency of the individual, there are no surgical reasons why it should not be done. No surgeon would say that radical cure of hernia is absolutely safe, and yet no surgeon would refuse to operate in a suitable case in view of the functional gain the operation gives. All I claim is that the same view be taken in respect to nephropexy, provided it be shown that equal gain be obtained from it.

No useful purpose would be served by giving a long list of the symptoms that may be attributed to movable kidney. It is the clinical picture depending upon the association of several symptoms which is so characteristic, and not the presence of any particular symptom. My cases arrange themselves naturally in four groups. I intend to describe briefly the characteristic features of each group and the indications for operation in that group. A fifth group, where the predominant complaint has reference to the female pelvic organs, might be described, but of these cases I have had insufficient experience to speak definitely. Before, however, proceeding to discuss the indications for operation, I wish to state that in my opinion it is not necessary to operate because a kidney is movable so long as it gives rise to no trouble; in other words, simple mobility does not constitute an indication for operation. I would also at this point emphasize the fact that it is fallacious to suppose that the amount of trouble caused by a kidney is to be directly measured by the degree of its mobility. I have seen kidneys which were only slightly movable responsible for most severe symptoms, and, on the other hand, have seen the right kidney in the iliac fossa in people apparently in good health.

Group 1.

This group contains those cases whose predominant symptom was local pain. The pain is due to the perirenal inflammation resulting from recent sudden displacement of the kidney, to ureteral obstruction, or to obstructed venous return. I have known it simulate pain due to gall stones, to appendicitis, or to renal calculus. It may be so severe as to incapacitate the patient. The pain I am now referring to must not be confused with the dragging, aching pain in the back and sides which is much more commonly associated with movable kidney, but which is due to drag on surrounding structures, and is much more vague in character.

In August, 1908, I operated on a young woman who was sent to me by Dr. Garman of Great Barr. She had a very movable right kidney, and complained of "gnawing pain" in her right side. At times the pain assumed the characters of typical renal colic, and required morphine for its relief. Rest in bed was always followed by entire disappearance of the pain. Complete relief followed nephropexy.

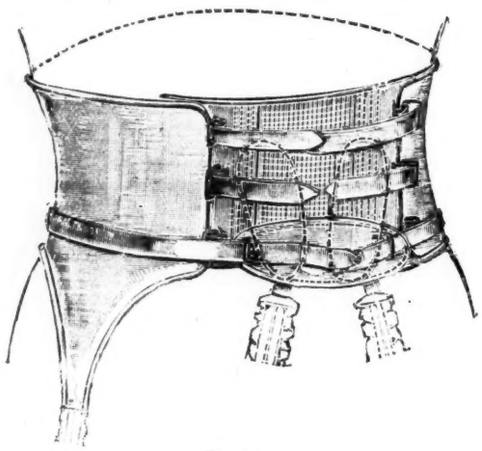


Fig 1.

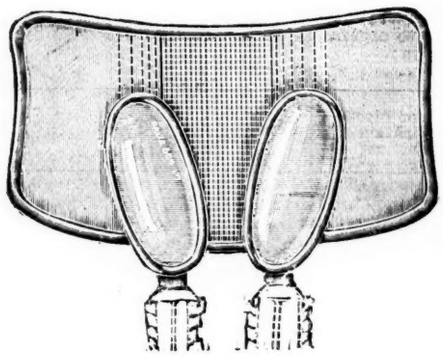


Fig. 2.

I have also operated upon a girl who was sent to me by Dr. Tangye of Coventry. She complained of pain in the right side, which was so severe as to prevent her doing her work as a parlourmaid. The right kidney was very movable, but the situation and character of the pain were such as to render it doubtful whether the kidney or appendix was at fault. I examined the appendix at the time of operation and found it to be quite healthy.

Two years ago I saw a lady, who stated that some months previously, while laughing violently in a theatre, she was seized with intense pain in the right side. The pain persisted, and she had to stay in bed for several weeks. A diagnosis of gall stones was made, and this was supported by the presence of an ill-defined, acutely tender swelling below the right costal margin. The acute symptoms subsided with rest in bed, and the right kidney was then found to be movable and tender. The kidney was fixed, and since then she has remained perfectly well.

There is another type of case in which local pain is very marked. The pain is more or less constant while the patient is up and about, and is made worse by exertion and stooping. Lying down quickly brings relief. I have seen five men who were incapacitated for work on account of pain of this type. The right side was affected in each case. In four the right kidney could be felt, but was only slightly movable, while in the fifth case the kidney could not be felt. The pain is referred to the loin, and from there radiates forwards along the costal margin, and upwards to the shoulder-blade; only occasionally does it extend along the ureter to the groin. All my cases have been men, and all have been engaged in heavy work or had met with an accident. In several the urine has con-

tained a little albumen, but neither pus nor blood. I have operated on two cases, and in each found the kidney displaced a little downwards and forwards, with the lower pole rotated inwards and surrounded by numerous adhesions. In other respects the kidneys were healthy. I believe the pain is due largely to obstruction of the ureter as it passes over the lower pole of the kidney. The mechanism is sufficiently explained by the illustrations.

The result of operation for the relief of local pain is excellent, and I think every one agrees that renal pain in association with mobility of the kidney is a sufficient indication for nephropexy when the pain is so severe or so persistent as to cause serious inconvenience. With regard to the second class of case which I have mentioned, I would advise exploration of the kidney with a view to nephropexy, even though the kidney were only slightly movable, provided that the pain was sufficiently severe to prevent the patient following his occupation. The important point to ascertain in these cases is whether the pain is made worse by the upright position and by exertion, and is relieved by lying down.

Group 2.

In this group I have placed cases whose predominant troubles were associated with the digestive system. In almost all my cases symptoms referable to the stomach or colon have been present, but in some these have been the chief cause of complaint. The cases present quite characteristic features. They complain of flatulent dyspepsia, vague abdominal discomfort, and constipation. Vomiting is not usual, but there may be paroxysmal attacks of sickness, when everything is vomited back. The symptoms bear no very definite relationship to the taking of food, and may be at their worst several hours after a meal. Colon pains of all kinds are common, and the colon may be distended and thickened. Twice I have operated when mucous colitis existed in association with right dropped kidney, with great benefit. Generally there is loss of weight, and, if the patient has had to lead an active life, there may be great emaciation. These symptoms are associated with more or less hypochondriasis, irritability of temper, and restlessness. The history in all my cases has been a long one, in some extending over eighteen to twenty years. All kinds of medicines and diets have usually been tried without benefit. The only remedy that gives real relief is prolonged rest. On examination, nothing definite can be found. Often the stomach is moderately dilated, but there is no evidence of pyloric obstruction. The colon may be thickened, and a little tender on firm pressure. Usually, it is the right kidney that is movable, but often the kidney is not tender, and there are no symptoms which can definitely be attributed to it.

In March, 1908, I saw a married woman, aged 36, a patient of Dr. Newton. For twenty years she had suffered with her stomach. This took the form of periodical crises of severe epigastric pain and vomiting. On several occasions she vomited blood in large quantities, but there had been no haematemesis for five or six years. For the last two years she had been much worse generally, and was unable to do any work—the epigastric pain was severe, and she suffered much from flatulence and constipation. When I saw her she had just recovered from an attack lasting nine days, in which the pain was intense and large quantities of bile were vomited. Medical treatment was quite useless, rest in bed being the only thing that gave relief. She was a stout, pale, flabby woman. There was diffuse tenderness over the whole abdomen, but no special tenderness in the epigastrium. The stomach was of moderate size. The right kidney fell into the iliac fossa on standing up.

I advised fixation of the right kidney, for these reasons: (1) that the kidney was obviously displaced, (2) the symptoms, though severe, were periodic and induced by exertion, (3) there was no direct evidence of ulceration of the stomach or of pyloric obstruction.

For some months after operation all her troubles disappeared, and she was able to eat ordinary food and do her housework, and said that she felt better than she had done for years. After indulging in a heavy meal of pork chops she had a mild attack of pain and sickness, and since then has had to be careful with her diet. All acute symptoms have subsided, and she looks, and says she feels, much better than formerly.

In September, 1906, I saw, in consultation with Dr. Suckling, a widow, aged 50. She had been ill for ten years with "indigestion." She complained of flatulence, fullness at the stomach, and pain at the pit of the stomach after food. No vomiting. She also suffered with frontal headaches, backache, and general weakness. During the last year she had been much worse. The patient was a short woman, and weighed only 6 st. 8 lb. She was very thin. The stomach was distinctly dilated, and waves of peristalsis could be seen crossing it from left to right. There was no tenderness in the epigastrium, and no lump could be felt in the neighbourhood of the pylorus. Both kidneys were movable, the right to a marked degree. The urine contained albumen. Right-sided nephropexy was performed. She did very well, and is now much better than she has been for years.

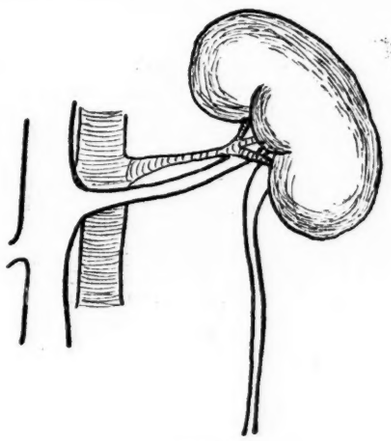


Fig. 3.—Normal kidney.

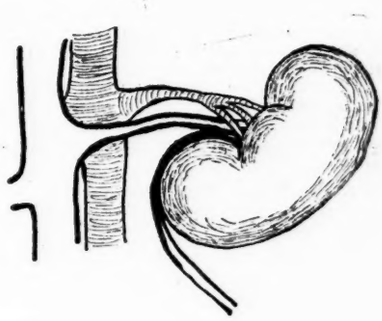


Fig. 4.—Rotated kidney.

Great care is necessary in this group to exclude gross lesions of the stomach and intestine and mistakes are easily made. In some doubtful cases an exploratory laparotomy may be advisable before performing nephropexy. When, however, other causes have been excluded there remain a number of chronic cases not relieved by general treatment in whom great benefit follows fixation of the kidneys. I have operated on 20 cases similar to the above, and have every reason to be satisfied with the results.

Group 3.

Cases suffering from spinal and cerebral neurasthenia. This is a large group. The leading symptoms are severe and persistent headache, backache, constant "tiredness," periodical fits of black depression, and absolute lack of the joy of living. The greater the necessity for work the more pronounced the symptoms. Married women cannot do their housework, teachers complain that the strain of standing and teaching causes complete mental and physical prostration, and business men state that they cannot concentrate their minds upon their work, lose their grip of detail and find that everything, even the writing of a simple letter, requires great effort. These people are irritable, restless, and miserable, a nuisance to themselves and all around. They are painfully conscious of their inefficiency in comparison with other people, are most anxious to do what they can, and generally go on working until a complete breakdown occurs. They eagerly grasp at anything which holds out a prospect of relief, and have

usually tried all kinds of remedies and been under the care of many different medical men. Some of them complain of occasional insane impulses, usually of a suicidal nature. These form a link between this group and the next, in which I have placed those cases that were undoubtedly insane.

I cannot do better than refer to one or two cases to illustrate the simple neurasthenia and neurasthenia with insane impulses to which I refer.

In October, 1907, a married woman, aged 28, was sent to me by Dr. Duncan, of Hockley. She was suffering from severe neurasthenia, dragging pains in the abdomen when standing, and amenorrhoea. She was unable to do her housework or to walk outside without assistance. Latterly she had been compelled to stay in bed. Medicines and general treatment were useless. The right kidney, which was badly dropped, was sutured in place. Since then she has been very much better, and, though not a strong woman, is about and doing her housework.

In March, 1908, a lady, aged 57, was sent to me by Dr. Suckling. She had not been well for twenty-two years. She complained of great weakness and aching of the back, which was so bad that she could neither walk nor sit with comfort. When visiting her friends or going to the theatre she took with her a board, against which to lean. She said that she could get no pleasure out of life, and as she could not get about, life was not worth living. Belts had been tried without much benefit. Both kidneys were down, but the left much more so than the right. As her heart was weak and there was albumen in the urine I decided to fix the left kidney only. She did very well and six weeks after the operation climbed to the top of the Herefordshire Beacon. She has cycled a great deal since and has led a far more active life than most women of her age and has done more and felt better than she has done for years.

In August, 1908, I operated upon a woman, aged 46½. For many years she had suffered from depression, "funny feelings" in her head, constant tiredness, and flatulence. During the last year she had been worse, and had been compelled to give up her housework. A prolonged holiday in the country brought no relief. Lately she had developed symptoms of insanity, attempting suicide on three occasions, and threatening to murder her child. She was a flabby woman, talkative, excitable, and at times very depressed. Both kidneys were badly down. She began to improve at once after the operation, and a few days ago her husband informed me that she was a different woman altogether.

These cases are selected from amongst nearly 80 upon whom I have operated for very similar symptoms. The results have been surprisingly good, and in some cases difficult to credit. There have been failures, but I can honestly say that no case has been made worse by operation.

To Dr. Suckling belongs the credit of directing attention to the close connexion there is between certain types of neurasthenia and movable kidney. From my own experience I can thoroughly endorse his assertion that such patients are greatly benefited, and in some cases entirely cured, by nephropexy. My results amply justify me in saying that comparatively young and healthy people suffering from progressive neurasthenia who do not improve under medicinal and general treatment, or, having improved, rapidly relapse on returning to the ordinary conditions of life, should be examined for renal mobility. If the kidneys are mobile, and there are no conditions present which would render the operation dangerous the patient should be told that nephropexy would probably be followed by marked improvement. In such cases it is unfair to regard the condition as incurable until the kidneys have been fixed. Time must be allowed for improvement. I make it a rule never to estimate the results of the operation until six months afterwards. Some cases improve slowly, and the full benefits of the operation are not evident for many months. Further, rapid improvement may be deceptive and relapse occur later. If, however, judgement is withheld until six months have elapsed and the patient has returned to the ordinary conditions of life, results can be much more safely estimated. Relapse is exceptional, and one of my oldest cases, operated upon nearly three years ago, whom I saw a few days ago, assures me that she has been better in health than at any time in her life, in spite of the fact that she has passed through some exceptionally trying experiences since the operation.

Group 4.

In this group are placed cases of undoubted lunacy. I have operated on twelve people who were quite insane at the time of operation, and who would have been sent to an asylum immediately had not operation been advised. One of these cases died on the fourth day. Three have been operated on so recently as to be of little value. One of these had been in an asylum eighteen months and discharged partially cured. She relapsed at once on returning home. A second suffered from profound melancholia, and would neither eat nor speak for twenty-four hours at a time. A third, a man, had been compelled to give up his business, had threatened to commit suicide and murder his wife, and on two occasions had given himself up to the police on imaginary charges. These three cases are improving, but insufficient time has elapsed to make it safe to say what the result will be.

The fifth case was a woman of 45, who suffered from active melancholia. She shouted for hours together, wept copiously, did not know her husband or friends, and was obsessed with the idea that her doctor was responsible for her trouble. She was wasted to a skeleton. Double nephropexy was performed, and for five weeks there was no improvement. The operation was performed on October 6th of last year, and she is still under observation in a home. She is very much better, sews and knits, helps to cook, and takes great interest in all that goes on. Further time is needed before any conclusion can be arrived at.*

A sixth case, a lady aged 38, a patient of Dr. Stanley, of Coventry Road, was operated on in March, 1908. For six months she had been quite insane and had been sent away from home in charge of two nurses. She was suffering from profound melancholia and fixed delusions, and would take no notice of her husband, her children, or the people around her. Both kidneys, which were badly down, were fixed. For some weeks she made little or no progress, but on leaving the nursing home she began to improve. All symptoms of melancholia disappeared, and, except that she was excitable, she appeared well. Within the last week, as the result of the illness of one of her children, lack of sufficient rest, and excitement, she has become very excited and needs supervision. The probability is that with rest and care she will come all right, but she cannot yet be classed with those who are well.†

The remaining six cases were all well when last heard of. Two had suffered from mania, two from melancholia with suicidal impulses, one from mania complicated by delusions and homicidal impulses, and one from delusional insanity. I can only refer to three.

In May, 1908, I was asked to meet Dr. Berlyn in consultation upon a young lady, about 30 years of age. She had always been of a highly-strung nervous temperament, but remained in fair health until August, 1907. Then, after a mental shock, she became very excited and almost maniacal. Recovering from this she became very depressed. This ended in December in an attack of acute mania. In this attack she was seen by Dr. Stanley Barnes. She was sent to a nursing home, where she improved sufficiently to be sent to Torquay. While away she was practically well, but immediately on her return to Birmingham relapsed, and became maniacal again. In this attack I saw her. Both kidneys were moderately dropped. Learning from Dr. Barnes that no other treatment was likely to benefit her, I performed double nephropexy. After a time she began to improve, and now the friends say that except for absent-mindedness, and a rather dreamy disposition, she is well.

In June, 1907, I saw, in consultation with Dr. Lewis, of Perry Barr, a girl 28 years of age. She was full of silly fancies of all kinds, had escaped from her friends, and raced through the streets without her hat. To do this she had climbed over the wall into the next garden, and from there into the street. Amongst other delusions she had that of being the wife of a prominent statesman. She was so noisy and troublesome that a trained nurse declined to look after her. The right kidney was moderately prolapsed. I had a septic finger at the time and was unable to operate. At my request, Mr. Barling very kindly operated for me. For a while she was very bad, getting out of bed and at times being very violent. In six months she was quite well, and has remained so since.

In April, 1908, at Dr. Suckling's request, I operated upon a lady 33 years of age. She had been certified as a lunatic, and was on her way to an asylum when seen by Dr. Suckling. She was suffering from melancholia with marked suicidal tendencies, having attempted suicide on three separate occasions. Both kidneys were very movable, and at the time of operation were found embedded in dense perirenal adhesions. The capsules were thick and studded over with thick opaque patches. The wounds healed by primary union.

During the first few weeks she made little progress, being very quiet, introspective, and miserable, and was never left alone. For several months she was kept in a nursing institution. A few days ago I heard that she was quite well mentally and had improved greatly in general health.

I advance no theory; I merely state facts. I have operated on twelve lunatics, not one of whom is now in an asylum. Six are well, and of the remaining five still living I have every hope that time will complete the improvement that has already commenced. I do not assert that movable kidney is the sole cause of the insanity in these cases, but I do say that in a person of unstable mental equilibrium it

* This patient is now quite well and performing the usual duties of a housewife.

† Since this paper was written this patient has been sent to an asylum.

is sufficient to turn the balance. Removal of other so-called causes of insanity, for example, alcohol, business strain, etc., is followed by cure in a certain percentage of cases. I contend that removal of the baneful influence exercised by a loose kidney will also be followed by a definite percentage of cures. This, however, cannot be effected by general treatment, or the special treatment carried out in asylums, but by operation alone. My results surely justify the contention that where the kidneys are found to be movable in an insane person, in justice to the patient and the friends, nephropexy should be advised before the case is sent to an asylum.

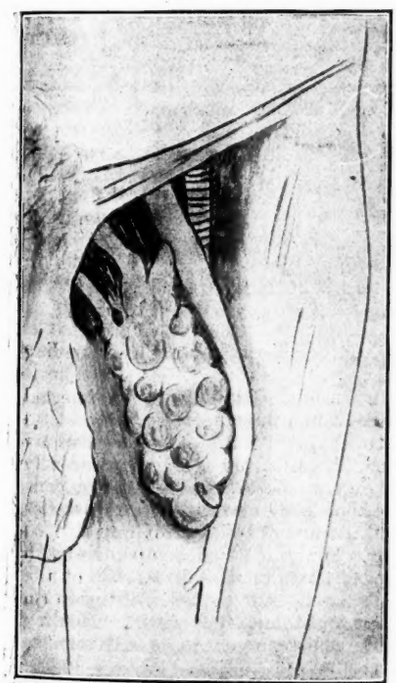
GENERAL SUMMARY.

1. Nephropexy is a safe and satisfactory surgical procedure.
2. Renal mobility alone is not an indication for operation.
3. Local pain of sufficient severity to diminish working efficiency is an indication for operation.
4. Chronic functional disturbance of the digestive system may be caused by movable kidney. Such cases often resist all kinds of general and medicinal treatment, and are greatly benefited by nephropexy.
5. Nephropexy is indicated in progressive spinal and cerebral neurasthenia occurring in association with movable kidney, when other measures have failed to cure, or improvement is followed by rapid relapse.
6. Nephropexy is indicated when movable kidney is associated with insanity.

LIPOMA IN THE SITE OF A FEMORAL HERNIA.

BY C. J. PATTEN, M.A., M.D., SC.D.,
PROFESSOR OF ANATOMY, SHEFFIELD UNIVERSITY.

IN a young male subject, aged 25, I observed a tumour in the thigh occupying the position of a femoral hernia. To the touch it seemed pliable and to a certain extent reducible, though from the first I had my doubts as to whether it was a hollow knuckle of tube which I was manipulating. I made this digital examination before the subject was injected with preservative fluid, and being undecided as to what the tumour was, I proceeded to inject the subject with formalin with a view of hardening the viscera for special purposes.



View of the tumour from the front after removal of the cribriform fascia and the anterior wall of the femoral sheath. The lobulated character of the lipoma and two ascending processes are apparent. The long saphenous vein is seen displaced outward.

I was glad that I adopted this reagent, as it also proved most useful in hardening and fixing the shape of the tumour, which on further examination proved to be a lipoma. On dissecting down on it, I found that the saphenous opening had been much encroached upon, and it was only with the greatest difficulty that I could detect the remains of the much - stretched and thinned-out cribriform fascia which gave a partial covering to the anterior surface of the tumour. That a considerable upward prolongation of the fatty mass occupied the crural canal, and, moreover, blended with a well marked septum crurale, and that the long saphenous vein was pushed aside in an outward direction, were points which were made out with little difficulty. When the front of the mass was well cleaned and defined it was seen to be elongated in shape, its longest measurement being about 5 in., its broadest measurement 2 in. This surface was much lobulated, and two tongue-like processes could be seen projecting upward and inward. The inner of these burrowed between the adductor longus and adductor brevis; the outer between the adductor brevis and pectineus. On endeavouring to shell out the mass I found it to be anchored by several other processes which had burrowed their way through muscular strata. Thus a portion of the tumour passed outward under cover of the femoral vessels (and apparently outside—that is, behind—the femoral sheath) and vastus externus; another part proceeded upward and outward in the interval between the psoas and pectineus. These last two processes could not be seen until the tumour was partially dislodged, as they took origin from the deep aspect. On removing the tumour from its bed I found that its deep surface was much broader and flatter than its superficial surface, and was not studded with small lobules. The floor of the space occupied by the tumour was formed by part of the anterior surface of the adductor magnus. The fascial covering, which formed a very delicate lipoma-capsule, seems to have been derived from the fascial envelopes of the various muscles in the neighbourhood. The cavity in which the tumour lay was 2 in. deep, and presented the following boundaries in a fairly definite manner:—Inside, adductor longus and adductor brevis; outside, pectineus and femoral vessels; floor, adductor magnus; roof, integument, superficial and cribriform fascia, and higher up the anterior wall of the crural canal; upper limit, Poupart's and Gimbernat's ligaments.

The circumscribed position which this mass of fat occupied renders this case interesting, though at the same time difficult to explain. Fat was not unduly collected together in other regions; in fact the subject was on the whole rather spare. The corresponding region of the other (right) thigh bore no evidence of fat deposit other than the ordinary layer of superficial fascia. The muscles of the body generally had not shown signs of having undergone fatty degeneration. There is just one suggestion which I would offer, namely, that this aggregation of fat at the site of a femoral hernia may possibly have represented a hypertrophic condition of the septum crurale, which is mainly composed of extraperitoneal fatty tissue. Indeed the presence of a firm plug of fat, which quite filled up and even distended the crural canal, and which, on the one hand, was in direct continuity with the rest of the tumour, and, on the other hand, with the enlarged, fat-laden septum crurale, would seem to point to such an origin.

BILATERAL NEPHRO-LITHOTOMY,

IN WHICH THE KIDNEY WAS KEPT OUTSIDE THE WOUND FOR SEVEN DAYS BEFORE RETURNING IT TO THE LOIN.

BY JOHN CLAY, F.R.C.S.,
ASSISTANT SURGEON, ROYAL VICTORIA INFIRMARY, NEWCASTLE; DEMONSTRATOR OF ANATOMY, UNIVERSITY OF DURHAM.

WHEN both kidneys contain stones, the mortality of the operation for the removal of the stones is very high, and any modification of the usual procedure which promises to diminish the risk is worth consideration. In the case given below both kidneys contained a large number of stones, the urine contained thick pus, and the patient was in a weak and exhausted condition. After removing the stones from the right kidney it was not, as is usual, returned to the abdominal cavity, but was kept outside the wound for seven days. By doing this, the possibility of losing our patient from haemorrhage was reduced to a minimum, as bleeding points could easlly be seen and dealt with. It also seemed that the place for an organ, dripping with decomposing urine and pus, was outside the abdominal wall, and not in its loose soft bed in the loin.

The following are the notes of the case:

Eliza S., aged 34 years, married, was sent by Dr. Spencer, of Wallsend, on April 13th, 1908, to the Royal Infirmary under my care.

History.—For nearly two years the patient had been in poor health, and had a dull aching pain in the small of her back. For five weeks she had noticed that her urine was thick and opaque, and that micturition was painful and frequent.

On examination the patient was very emaciated, and palpation showed the right kidney to be much enlarged and tender. A cystoscopic examination was attempted, but it was impossible to get the bladder sufficiently clear to see the ureters.

First Operation.

On April 16th, 1908, an oblique incision immediately below and parallel to the last rib on the right side was made. The kidney was exposed and found to be full of stones, occupying both the pelvis and calyces. The parenchyma was so disorganized by inflammation that nephrectomy appeared to be the best way of dealing with it. Before doing so, however, it was necessary to find out the condition of the other kidney. For this purpose the peritoneal cavity was opened and the hand passed to the other side. The left kidney was then found to contain stones and to be in much the same condition as the right, making it not advisable to remove the latter, but to remove the stones from it. The right kidney having been brought out of the wound, the stones were taken from the pelvis and calyces. Haemorrhage was controlled by putting clips on the vessels, as, owing to the sepsis present, suturing the kidney substance was to be avoided. The tissues were so friable that ligatures would not hold. For this reason, and for those given at the commencement of the paper, I determined to treat the kidney extraparietally, and keep it outside the wound well wrapped in gauze. The free haemorrhage showed that there was no tension on the pedicle.

Stones removed from the pelvis and calyces of the left kidney, one-half natural size.

The bed from which the kidney had been removed was packed with gauze, and the patient returned to bed. In the after-treatment proctolysis was employed. On the seventh day after the operation an anaesthetic was given, the gauze removed from the loin, and the kidney, which was now covered with healthy granulations, returned to its place.

On May 18th, 1908, the patient was sent home considerably improved.

Second Operation.

She was readmitted on August 6th, 1908, to have the stones removed from the other kidney. At the second operation, as the previous one had been so satisfactory, exactly the same course was followed, but this time the kidney was returned to its bed four days after bringing it out on to the abdominal wall.

She again made an excellent recovery.

On December 3rd, 1908, she was shown to the members of the Northumberland and Durham Medical Society. She had greatly improved in appearance and expressed herself in every way relieved.

After the first operation the patient was very ill indeed, and her recovery was largely due to the skilful manner in which Sister Mathewson managed the continuous rectal injection of normal saline solution.

Though the plan of keeping the kidney outside the wound was adopted on the spur of the moment, yet, as it diminishes the dangers of attempts to save lacerated or septic kidney, I think it is an addition to the conservative surgery of that organ.

REMOVAL OF A LARGE VARIX OF THE ORBIT.

By Sir WILLIAM J. COLLINS, M.S., M.D.,
B.Sc.Lond., F.R.C.S.Eng.,
SURGEON TO THE ROYAL EYE AND LONDON TEMPERANCE HOSPITALS
OPHTHALMIC SURGEON TO THE HAMPSTEAD AND NORTH-WEST LONDON HOSPITAL.

Mrs. Jane W., aged 42, had had three children; the last was 7 years old. A fairly healthy woman, always had a high colour, more marked on the right side. Fourteen years ago—some three months after the birth of the last child but one—the right eye began to become prominent. Some large vessels began to show at the inner canthus. For the last three years the proptosis had become gradually more marked. The right eye was projected forwards and outwards on to the cheek, and large worm-like veins formed a plexus at the inner side of the globe. The lids did not close over the eyeball, and in profile the whole mass projected in a repulsive and unsightly fashion beyond the line of the nose. She had sought advice, but an ophthalmic surgeon had said it was too dangerous to operate on. She was greatly distressed, and was unable to go about in consequence of the deformity. A loud *bruit de diable* was audible with the stethoscope over the orbital swelling. The vision of the right eye was reduced to J. 20; that of the left was $\frac{6}{6}$ and J. 1. The fundus of the right eye showed the veins of the optic nerve rather larger than usual, otherwise nothing abnormal. The pulse was rapid (104); heart sounds normal. There was a large varix in the right thigh, and she had suffered from haemorrhoids. I admitted the patient into the London Temperance Hospital in November, 1905.

November 23rd. Under chloroform I tied the right common carotid artery just above the omo-hyoid. This produced, however, no appreciable effect on the swelling or proptosis.

Full face before operation.

Profile before operation

Full face one year after operation.

December 7. Under chloroform I slit the right external canthus freely so as to obtain easier access to the orbital cavity. I excised the eyeball. I found I could pass my finger round the plexus of veins, they being apparently encapsuled and easily detachable from the orbital periosteum. I passed a pair of bent clamp forceps down as far as they would go to the apex of the orbit and clipped the pedicle of the venous bunch. I tied the pedicle with silk after cutting the mass away on the distal side of the clamp. The orbit was then lightly packed with iodoform gauze. The bleeding was astonishingly little. Healing was uninterrupted. The mass proved to be a cavernous angioma, and contained a few phleboliths.

The appearance before and after the operation (a glass eye *in situ*) is shown in the accompanying sketch and photograph. There had been no return up to the end of 1908.

THE members of the first class of Filipino medical students trained under the American rule received their degrees from the Philippine Medical School at Manila on February 27th.

THE APPLICATION OF CONTINUOUS SUCTION IN SURGERY.*

BY H. T. HERRING, M.B., B.S.,
LONDON.

THE use of continuous suction as a means of removing blood during operation, and of subsequently draining wounds and withdrawing secretions, has recently received some attention. Dr. R. H. Woods, of Dublin, published an interesting paper in the BRITISH MEDICAL JOURNAL of May 20th, 1905, On the Treatment of Purulent Cavities; and a second, entitled, On the Saliva Ejector as a Surgical Instrument, in the *Journal of Laryngology*, February 2nd, 1906. In the last mentioned paper he dealt with the subject as applied to nose and throat operations, and I wish now to endorse what he and others have said, and to advocate a more extended trial of this agent in general surgery.

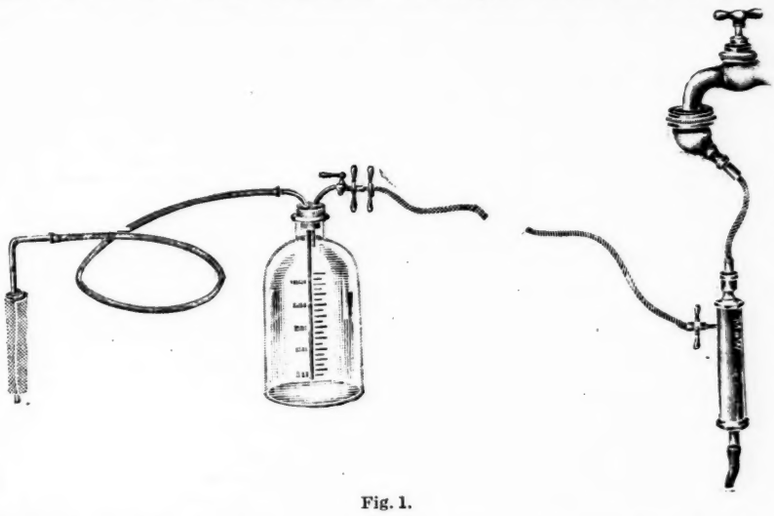


Fig. 1.

I have systematically employed continuous suction, as opposed to intermittent aspiration, for many years, and there can be no question of the benefits conferred on patients, especially after the operation of cystotomy, both as regard their comfort and their general well-being, for they are kept thereby quite dry, and thus relieved of the infliction of frequent dressings, which are imperative under ordinary circumstances. Dryness and the relief thus afforded undoubtedly enables wounds to heal more rapidly, and tends to a lower mortality from post-operative causes.

The chief obstacle which has up to the present prevented the more general employment of continuous suction is, I think, the want of some portable apparatus which can be used in any place, and which will easily maintain a continuous negative pressure without much attention. Neither Cathcart's pump, nor G. W. Richardson's modification, entirely fulfil these requirements.

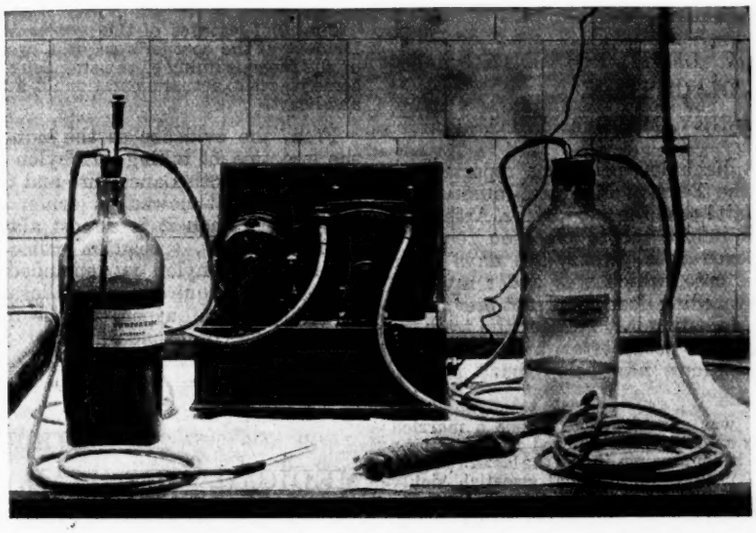


Fig. 2.

My first endeavour to overcome this difficulty was with a modified form of Plunkett's well-known saliva injector, fitted with a Royle's patent tap-union, by which it could be attached to any water supply (Fig. 1). This has proved most successful in many cases. I have used it for more than seven years, and others have tested its capabilities. It works well as a rule, if the water pressure is good, though its action is not very rapid and rather liable to variation. But the great objection to it is that the motive power—that is, the water supply by which it is worked—is very frequently inconveniently situated with regard to the patient's room, thus rendering a long length of tubing necessary to bring the suction to the place where it is wanted.

With the appliance shown in Fig. 2 that objection is obviated. It consists of a rotary pump, which will mechanically extract air, and a small electric motor to drive it, both being enclosed in a portable box. As almost every house and room has now an electric installation, the motive power exists everywhere, and always close at hand. Connexion between the motor and the nearest lamp holder has only to be established and the pump is ready to work. This apparatus is exceedingly efficient, extracting 10 to 12 cub. ft. of air an hour, and will produce a high negative pressure (over 29.5 in. of mercury). It will run for days, requiring only to be lubricated occasionally. The weight of the complete apparatus is about 26 lb., and the cost of running it does not exceed a shilling a day, reckoning the B. T. electric unit at sixpence.

I may mention one or two other points which have to be provided for in order that suction may be successfully applied in surgery.

1. To prevent the blocking of the suction tube in the wound either by the tissues themselves, or by blood clot, mucus, or pus.

2. To provide for the drainage and removal of fluids collected in cavities, or dependent parts not actually reached by the suction tube itself.

The easiest method of draining is to insert the end of the suction tube into one of considerably larger diameter placed in the wound in the ordinary way. The latter acts as a caisson, or well, to collect the fluid, and from which the fluid is sucked as soon as it reaches the level of the aspirating tube. This plan has a disadvantage, for although it prevents overflow and succeeds in keeping the cystotomy patient perfectly dry, yet it does not drain the cavity, and always allows a pool of fluid to remain below the level of the suction tube. If, however, the caisson is replaced by a porous or absorbent one, which I effect by tightly wrapping several layers of lint or gauze round the lower 3 in. of the suction tube, the result is much better. The fluid is first soaked up into the material, and is then gradually extracted from it and carried away by aspiration. The roll of material must of course extend beyond the lower end of the tube, and be long enough to touch the floor of the cavity and at the same time project above the surface of the skin; for otherwise atmospheric pressure will be unable to act on the cavity, and a negative pressure

* A paper read before the Surgical Section of the Royal Society of Medicine.

will be established there, when extraction of fluid will at once cease.

Another application of this principle is simply to embed the end of the aspirating tube deeply among the dressings. By either means extraction continues as long as any part of the absorbent dressing touches fluid; so that secretions, etc., percolating into a cavity, are at once absorbed by the material and then extracted and carried away to the receiver by the suction action. The receiver of which I have just spoken is a large bottle interposed between the pump and the suction tube. It catches and retains all the fluids withdrawn, and prevents the blocking of the apparatus.

This pump may also be used to irrigate a wound with any solution desired. One end of a small tube is attached to the outlet of the pump, the other to the short arm of a Woolf's bottle filled with the irrigating solution. A second tube—that which is to convey the fluid to the wound—is connected with the arm extending to the bottom of the bottle. The action, then, of the pump is to force air into the bottle and create a positive pressure, which in its turn drives the solution along the irrigating tube to the dressings in the wound. If a small and continuous supply of solution is wanted, the irrigating nozzle must be quite fine and the pressure regulated by adjusting the escape valve connected with the Woolf's bottle. Thus, a wound may be drained and irrigated at the same time without discomfort to the patient.

Suction has been employed in draining the chest, the kidneys, the gall bladder, the throat and nose, and I think with this more convenient and powerful apparatus a further trial should be given, not only in these cases, but also in all where it is important to remove secretions and discharges.

With regard to the removal of large quantities of water—for instance, when a cavity is being flushed during an operation—the calibre of the suction tube must be considerably increased and provided with a tap which can be turned off, so that the receiver can be partially exhausted before being used. In this way very large quantities of blood and fluid can be rapidly withdrawn in a short space of time.

Messrs. Maw and Sons, Messrs. Allen and Hanbury, and other instrument makers will lend the apparatus to any one who may care to give it a trial.

A FATAL CASE OF LEAD POISONING DUE TO DIACHYLON.

By F. STRONG HEANEY, M.D.Dub., F.R.C.S.Irel.

The series of cases of diachylon poisoning reported by Dr. Edmund Hay in the British Medical Journal for January 23rd, and the fatal case reported by Dr. Arthur T. Hall the following week, induce me to place on record a further case which proved fatal twenty-one days after taking diachylon. The case, which was under my care during the seven days preceding death, has not previously been reported. It is interesting as well for the train of symptoms presented and the *post-mortem* appearances as for its bearing on the efforts now being made to stop a widespread evil.

On January 21st, 1908, I was summoned to attend a married woman, aged 25, who was said to have suffered from gastritis for a long time, but to have become worse during the last fortnight. On entering the room I noticed an unusual sweetish sickly odour not to be described in words—a smell *sui generis*; and, on examining the mouth to find a possible cause in carious teeth, I observed a well-marked blue line on the gum margins. The patient was six weeks pregnant, and on being questioned admitted having taken diachylon a fortnight previously. I subsequently elicited the following history:

History.

She was the mother of two children, the younger being about 2 years old. Though in fairly comfortable circumstances, she had always been delicate and anaemic, and had a haunting dread of any further increase in family.

On January 8th, realizing that she was again pregnant, she bought, at the instigation of a friend, a quarter of an ounce of diachylon in mass. She rolled it into nine pills, which she took at short intervals in the course of forty-eight hours. Within a few hours of taking the last of the pills she began to have severe abdominal pains. Hot applications and hot drinks gave no relief, and after a day she began to vomit. Intermittent pain and vomiting continued for four days, then the vomiting ceased, but pain continued as before. During this time the bowels remained constipated. They were slightly relieved by enemata; no magnesium sulphate nor other purgative was given, the patient's stomach being considered "too weak" to stand purgation. On the other hand, morphine was administered to relieve the pains.

About a week after taking the diachylon mental symptoms first appeared. She became sleepless, and at intervals imagined she heard bells ringing, saw herself sitting in snow-drifts, imagined she was falling out of bed, etc. She had occasional attacks of faintness, especially on trying to sit up or turn suddenly in bed.

Condition when First Seen.

I first saw her a fortnight after she had taken the diachylon. She was then very anaemic and emaciated. She lay on her back prostrate, slipping down from the pillows. The skin felt cold (temperature 97°) but not unduly dry or moist. The tongue was dry and furred, and the lips covered with sordes. With the breath was exhaled the peculiar odour referred to above. The pulse was 138, soft and full. The bowels had not moved once since taking the diachylon save as the result of an enema. In spite of this, however, and in spite of a dilated stomach subsequently discovered the abdomen was retracted and flaccid. *Urine* was being passed frequently in small quantities, and accompanied by pain and burning. Seven ounces, saved the day after my first seeing her, yielded on analysis the equivalent of $\frac{1}{10}$ gr. of metallic lead. The specimen was otherwise normal.

Treatment and Subsequent Progress.

Magnesium sulphate was administered, and seemed at first to relieve two pressing symptoms—the constipation and the delusions. Digitalis and strychnine were given to combat the attacks of faintness. Under their influence the pulse-rate fell from 138 to 120 but gradually rose again to 140. Potassium iodide seemed to be contraindicated having regard to the large quantity of lead already in circulation and being excreted.

On January 26th, seventeen days after taking the diachylon, she complained of severe pain in the left shoulder and upper arm. Next day the pains had disappeared, leaving the muscles of the limb almost completely paralysed. Feeble flexion and extension at the phalangeal joints were the only movements left. Sensation was diminished but not completely lost. On January 28th the same condition appeared in the right arm, and passed through the same phases—first pain, then palsy and partial anaesthesia.

On January 30th the pulse became very rapid and irregular, and on the 31st she died in one of her attacks of faintness. This last phase of "heart delirium" was evidently brought about by implication of the vagi, but up to the end there was no indication of interference with the innervation of respiration.

Necropsy.

The chief features of the *post-mortem* examination, made by Dr. Raw at the coroner's request, were (1) acute inflammation of the mucous lining of the stomach and intestine, extending in some places to actual ulceration, (2) acute fatty changes in liver and heart.

From the evidence at the inquest it would appear that the practice of taking diachylon to produce abortion is prevalent in both Lancashire and Cheshire. It was stated, moreover, that nowadays when a diachylon plaster is required as such it is almost always called for "ready-made"—that is, spread on calico, etc.; in other words, whenever diachylon is demanded in mass the inference is that it is required for an illegal purpose. Even apart from the ethical aspect of the matter, it is regrettable that the class of people who resort to the drug are unaware of its poisonous effects.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ALCOHOL AS A SURGICAL DRESSING.

For some years it has been the custom in many surgical clinics to use methylated spirit as an agent for cleansing the skin previous to operation, and also for removing the inspissated débris from around the wound at the subsequent dressing. An antiseptic wash of some kind is usually applied to the wound itself. For some time now I have gradually found myself abandoning the use of any antiseptic wash at the dressings, and confining myself entirely to spirit, whatever the nature of the wound. It may temporarily smart, but it is only for the moment. But what I wish to state more especially is that spirit forms a most excellent dressing for wounds. For months I have used it alone in all freshly-incised wounds for whatever purpose—in many cases of radical cure for

hernia, in breast cases, in excision of veins, in three cases of displaced semilunar cartilage of the knee-joint, in abdominal sections, etc., and I find that I have had a larger series of continuous good results than from any other dressing. It is now my custom before closing the wound to bathe the tissues with the ordinary "industrial" methylated spirit, and, after closure of the wound, to apply plain white sterile gauze wrung out of spirit.

The benefit of this dressing is, I believe, due not so much to the antiseptic properties of the spirit as to the powerful affinity that alcohol has for water, thus removing, perhaps, the most essential factor of bacterial growth—moisture. It also lessens in many cases the necessity for drainage, and by its styptic properties shortens the time necessary for securing the smaller bleeding points. When the wound is looked at for the first time after the operation, the small quantity of blood which has oozed from each stitch hole will be found caked and clotted and quite hard.

I should very much like to hear if others have used spirit in this manner, and if they have obtained the same results.

It is well known that whisky and rum were used occasionally as a dressing for wounds before antiseptics were introduced.

JAMES GRANT ANDREW,
Surgeon, Victoria Infirmary.
Glasgow.

TREATMENT OF DYSMENORRHOEA.

IN Dr. Herman's paper (p. 937) on the above subject, he sets a definite limit to the meaning of the word "dysmenorrhoea." It would seem to me that he holds the view that I have for a long time past entertained, and have only seen set forth in one work on gynaecology (American)—namely, that *all* dysmenorrhoeas are really due to spasm—and hence, I think, a more expressive word would be "menorrhspasm."

I believe that true dysmenorrhoea, or menorrhspasm—whether in virgins or married women—arises through nerve causes: that from the consequences of some illness, from anaemia, from overwork, worry, or, perhaps, from a condition of the general nervous system, normally prone to over-excitability or want of balance, the nervous mechanism of the patient is functionally upset, and the generative organs are among the first to feel the strain, and a tropho-neurosis is set up, giving rise to a spasm of the uterine muscular fibre at the time of the period. What is required, therefore, for a rational plan of treatment is to co-ordinate these irregular spasmodic uterine contractions, and, accepting Dr. Herman's theory of imperfect development of the spinal or sympathetic centre, to adopt some method that will stimulate this centre to full function.

I know that to many gynaecologists the mere mention of electricity is "anathema"; but I can assure Dr. Herman or any other practitioner who has to deal with cases of true dysmenorrhoea that if they will try the constant current in conjunction, if possible, with the static wave current in the manner that I will describe, they will find that they will often obtain the most gratifying results. I am certainly not going so far as to say that *all* cases will yield to this treatment any more than to any other, but (especially in the case of unmarried girls) there is a natural and proper repugnance to any direct uterine manipulations, and it is well worth trying to relieve the intense pains that so many girls suffer at the times of the menses, when the attempt can be made without outrage to their feelings.

The method that has given me such satisfactory results on the whole that I think it worth bringing before the profession is as follows:

I first apply the wave current from the negative side of a static machine by means of a long metal electrode inserted into the rectum and pushed well forward in apposition with the posterior wall of the uterus. This procedure is perfectly painless—indeed, it is hardly uncomfortable—and treatment lasts for from ten to twenty minutes. I next apply the constant current, and here the method varies according as one is treating a virgin or a married woman.

In the former case two large copper electrodes (8 by 5 in.) are placed one over the abdomen and the other over the lower lumbar region, with four thicknesses of moist Gamgee tissue between them and the skin, and a current of from 20 to 60 milliampères passed for ten to fifteen minutes. Three treatments a week for one or two intermenstrual periods will often entirely relieve the pain for many months, and, should there be any return, one or two treatments just before a period will be sufficient. In the case of a married woman, after employing the static wave, I apply the constant current by means of the same two abdomino-dorsal electrodes, only that now both are connected to the same pole of the source of current—usually the positive—while the negative pole is attached to a suitable electrode, which is passed into the uterine cavity. In these cases a current of 10 to 30 milliampères for ten minutes three times a week will in nearly all cases give relief.

I trust that a fair measure of success in my own practice in relieving this most common cause of suffering will be considered a sufficient reason for advocating a form of treatment, not usually favoured by gynaecologists, to supplement those suggested by Dr. Herman.

J. CURTIS WEBB, M.B., B.C.Cantab.,
M.R.C.S., L.R.C.P.
London, S W.

HIGH-FREQUENCY CURRENTS FOR INSOMNIA.

IN the papers and correspondence on the subject of Insomnia which have lately appeared in the JOURNAL, and especially those dealing with the treatment of this troublesome complaint, I note that no reference has been made to the very beneficial influence of high-frequency currents in producing sleep.

The value of high-frequency currents in the treatment of various functional and other diseases is, perhaps, not sufficiently recognized by the profession. Unfortunately, when this method of treatment was introduced several years ago, it was unwisely boomed. It was thought that these currents would be of service in all kinds of disease, and installations were introduced into hydropathic establishments and chemists' shops, where they were under the control of ignorant bath men and bath women, and shop assistants without any medical supervision. It was natural, therefore, that not only was no benefit derived by the patient when treated by those unskilled operators, but in many cases actual harm resulted. Consequently, the pendulum has swung the other way, and it is now common for many medical men to assert that high-frequency currents are of little or no use.

After years of experience and careful study by physicians who devote themselves specially to electrical treatment, it has now been determined in what forms of diseased and abnormal conditions high-frequency currents are found to give rise to good results. Among these varied conditions insomnia stands pre-eminent. We have no difficulty in producing sleep by the ordinary methods of drugs, but their results are not permanent; and they are frequently a source of danger to the *moral* of the patient. Further, while they promote sleep, they usually occasion unpleasant sensations on the day following the administration of the drug.

In happy contrast to the influence of medicinal treatment, the high-frequency currents, when administered carefully by a qualified medical man, induce a sleep that is pleasant in character and has no evil consequences. Further, not only is sleep produced, but the patient derives general benefit from the influence of high-frequency currents. There is a feeling of well-being and of exhilaration produced, which is permanent in character. From personal experience I may state that very few patients who have come under treatment on account of insomnia have not derived great benefit from the treatment. Sometimes the result is immediate, at other times a more prolonged course of treatment is required. I may add, however, that I find it necessary to administer a large amount of milliampèrage, reaching 700 to 800 m.a. This maximum is not attained at once, but, commencing with a small dose, one gradually increases the amount till the maximum is reached.

While undergoing this high-frequency treatment, not only is insomnia overcome and the patient placed in a better condition, which is easily recognized by himself, but from chemical analyses of the urine we have learnt that these currents produce an improved metabolism within

the human economy, and that a normal condition of bodily function is attained.

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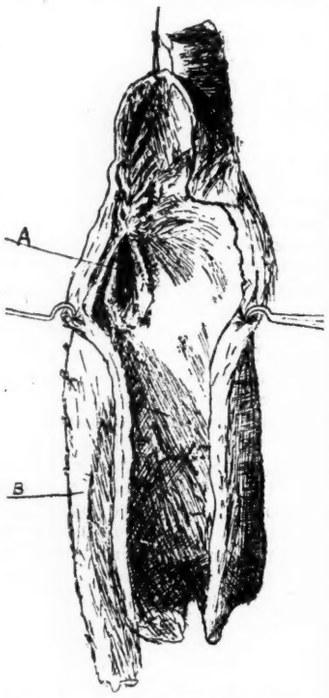
ULCERATION INTO AORTA DUE TO FOREIGN BODY IN OESOPHAGUS: FATAL HAEMORRHAGE.

ABOUT 10 a.m. on April 5th, 1908, I was called to see a boy of 8 years old who was vomiting blood and passing blood by the bowel. When I saw him he was sitting on his mother's knee. He looked extremely blanched, the lips were bloodless, and he complained of great thirst and pain in the epigastrium. Percussion and auscultation revealed no tenderness or anything abnormal in the thorax or abdomen. The temperature was 100°; pulse 146.

History.

Until the evening of April 3rd he was apparently perfectly well. At 7.30 p.m. on that date, while sitting in a chair, he commenced to vomit and brought up a small quantity of clear frothy fluid. He slept well that night, and got up apparently well the next morning. During the day he played about in the street, and his mother noticed nothing amiss, except that he did not take his food with his accustomed relish.

At about 7.30 p.m. on April 4th he expressed a wish to go to stool, but on the way he suddenly turned faint, and became very pallid. He was at once put to bed, and for the next few hours complained of great thirst. At 9 p.m. the bowels acted, and the motions were quite black. About 11.30 p.m. he vomited "more than a pint" of blood, the first that came being black, and the rest "bright red." The vomiting lasted a few minutes. After that he rested until 2 a.m. on April 5th, when he vomited two lumps of clotted blood, and had a slight action of the bowels, the stools in this instance being also black. At 6 a.m. he vomited a little "phlegm," but no blood. Four years ago, his mother told me, he swallowed a halfpenny, which had never been recovered.



Posterior view of trachea, aorta, and oesophagus, the latter laid open from behind. A is the pocket in which the coin was lodged. The clear spot indicates the aperture into the aorta. B, Aorta.

Condition on Admission.

During the forenoon of April 5th he was admitted into the Batley and District Hospital. His condition on admission was one of great prostration. Pallor was very marked. He complained of great thirst and a slight pain in the epigastrium. He had a short dry spasmodic cough. The temperature was 100° F., and the pulse, feeble and thready, was about 150, but difficult to count. An *x*-ray examination showed a round opaque body in the upper part of the thorax in the middle line.

The diagnosis arrived at was that the haemorrhage was due to ulceration into the aorta, and that the case was inoperable.

He was fairly comfortable until 9 p.m., when he suddenly collapsed, and died in a few minutes, the collapse in this instance being accompanied by oozing of bright-red blood from the mouth and nose.

Necropsy.

A *post-mortem* examination was made two days later, and the following facts noted. The whole skin was markedly pale, and there was no *post-mortem* staining. All the organs were healthy, but almost entirely bloodless, the heart and large arteries were nearly empty. The stomach and intestines were filled with dark blood.

The heart, aorta, trachea, and oesophagus were removed *en masse*, and a careful dissection made after hardening in formalin. A halfpenny was fixed transversely in the oesophagus. The neighbouring parts of the oesophagus, trachea, and aorta were matted together by fibrous tissue. The wall of the oesophagus at this part was about ¼ in. thick, and of almost cartilaginous consistence. The edges of the coin were securely lodged in two deep pockets in the oesophageal wall, and the edges of these pockets were drawn out into fringe-like projections (see drawing). At the bottom of the left pocket there was a small aperture not much bigger than a pin's head, with attenuated edges, communicating with the aorta, through which the fatal haemorrhage occurred.

The halfpenny was quite black. An attempt was made to polish it to find the date, but the figures 18— were all that could be deciphered.

With reference to the length of time the coin had lain in the oesophagus, the account of the mother was checked by that of the medical man who attended the patient at the time the coin was swallowed, and the period certainly fixed at about four years. During all that time the mother stated that the child complained of no inconvenience whatever.

THOMAS LOVETT, M.B., Ch.B.

A CASE OF ACUTE THYROIDITIS.

IN April, 1908, at Hong Kong, a male Chinese, about 25 years of age, was brought to me for treatment. He complained of general malaise, of some stiffness and soreness of the neck, and of dysphagia.

He did not appear to be very ill; the temperature was 99.5° F. There was considerable chronic congestion of the pharynx, and many small granulomata on the surface of the mucous membrane. I ordered an alum gargle and some diaphoretic mixture.

He returned in three days, in accordance with instructions. He stated that he felt much worse, found great difficulty in swallowing, and his throat had suddenly swollen. The considerable increase in the circumference of the neck which had taken place was found, on examination, to be due to a general symmetrical enlargement of the thyroid gland. The tumour thus formed was smooth and tense, it did not fluctuate, nor was it pulsatile; there was no pain on pressure, and it was not freely movable under the skin. The symptoms were almost entirely dysphagic, but he complained also of loss of appetite, and his temperature was 100.5° F. I ordered the swelling in the neck to be painted with iodine liniment thrice daily, and potassium iodide in half-drachm doses, combined with a little aromatic spirits of ammonia, three times a day.

In the course of three days the swelling had greatly diminished, and the dysphagia was much relieved. At the end of a week all swelling had disappeared and the patient was feeling a little weak, but otherwise well.

This case is remarkable from its rarity and also from the rapidity with which resolution took place under the influence of potassium iodide, especially in view of the recently reported cases in which the exhibition of this and other iodides in large doses has caused sudden enlargement of the thyroid gland. It is also of interest to note that I had known this patient for some three years, during about half of which time he was in personal attendance upon me, and therefore I am certain he did not possess a small chronic goître, such as sometimes gives rise to a sudden enlargement of the gland. I know also that he did not come from a goîtrous locality. The man, who was very intelligent, assured me that no similar case had occurred in his family, nor were any of them afflicted with chronic goître.

I would venture to suggest some temporary lesion of the vasomotor nerves which control the blood supply of the gland as the possible cause of such a sudden enlargement.

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THE TREATMENT OF GONORRHOEA BY IRRIGATIONS.

IN the BRITISH MEDICAL JOURNAL of February 27th, 1909, page 531, Mr. J. J. Moore writes "a plea for more active treatment of acute gonorrhoea." He has treated, he states, "19 cases of acute gonorrhoea within the last four years," and the treatment adopted in these cases was the "daily repeated irrigation (potass. permang. gr. 1 to 10 oz. of boiled water heated to 99° to 100° F.) of the anterior portion of the penile urethra without the administration of any specific internally." Mr. Moore, writing from Sierra Leone, states that this treatment in his hands "has been rewarded with invariable success, the discharge disappearing even in the severest cases within ten to seventeen days, and no complications have arisen in the whole series of cases treated by this method." In large British military hospitals in recent years the irrigation treatment of gonorrhoea has been extensively carried out, and, speaking from a personal experience at Woolwich of 1,203 in-patients so treated in the past four years on the general lines (by no means new) advocated by Mr. Moore, I must confess to a certain amount of surprise at the duration of the disease in the cases cited by him. Were they Europeans? I conclusively showed in an article on the treatment of gonorrhoea, in the *Journal of the Royal Army Medical Corps* of November, 1908, in dealing with acute purulent gonorrhoea, that although the discharge may temporarily stop it commonly returns, and that six to seven weeks is about the average duration of urethral discharge even under the most favourable auspices with in-patient hospital treatment. In some cases gleet persists for months. The prolonged nature of the discharge is corroborated by independent military records in England and in India for fifty years past. Finger, of Vienna, is also of opinion that urethral discharge in gonorrhoea lasts six weeks despite all forms of treatment. The evidence of the Advisory Board Reports on venereal disease in the army, 1904, 1905, and the further valuable testimony of Major Blenkinsop, R.A.M.C., in an official report dated Simla, August, 1908, who visited sixty-four military stations to test these matters, amply endorses the prolonged nature of urethral discharge in many cases.

When a medical student, some twenty years ago, I heard (but never saw) of cases of gonorrhoea cured in three days. I did once, however, later see a case in which the discharge stopped within this period. The patient was an officer under orders for active service, who being naturally anxious to get rapidly well, and contrary to advice, underwent treatment at the hands of a prescribing chemist. The discharge stopped in three days, as the result of orchitis, and he travelled with me to South Africa nursing two enlarged testicles. He was left at the base, and is presumably impotent for life. It is cases such as these where a rapid cure is reported to have been effected that not infrequently develop gonorrhoeal arthritis or systemic infections at a later date. I commonly see a urethral discharge stop within less than seventeen days, and as commonly see it return, and this is the general experience of the medical profession. Microscopic examination of the centrifugalized deposit in the urine will very soon demonstrate to the close observer that the case is not really cured, as the gonococcus in uncomplicated cases can be recovered up to six weeks or longer, and pus and epithelial cells for a longer period. If pus cells are present, relapse commonly occurs, although there may not have been any obvious urethral discharge for a period of fourteen days to one month, and marriage is contra-indicated. In cases of posterior urethritis and orchitis, however, the gonococcus can be recovered up to three months or longer from the urine, and the micro-organism lies latent and recrudesces; such cases might be described as ambulant gonorrhoea or gonorrhoea carriers, and in civil life the danger to women is very great. In the army such cases are kept in hospital, and at Woolwich under observation on discharge from hospital, with benefit to themselves and the civil population.

H. C. FRENCH,
Major R.A.M.C.
Royal Herbert Hospital, Woolwich.

A society for the prevention of venereal disease has been founded at Warsaw.

UNDER the will of the late Colonel Arthur Saltmarshe, of Sevenoaks, Kent, Guy's Hospital and the Gravesend Hospital each receives a legacy of £500.

Reports of Societies.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, April 2nd, 1909.

Dr. W. H. CHEETHAM in the Chair.

Compensation for Accidents.

IN a paper on this subject, Dr. T. CHURTON held that in a disputed case each of the medical witnesses should be required to state in writing the reasons for his opinion as to (*a*) the exact *site* of the lesion causing the symptoms; (*b*) its *nature*, considered as a distinct and separate problem; (*c*) its complete *causation*, with an estimate of the share taken therein by the injury, either directly or by its effects acting in their turn as causes. If, for example, one man asserted that there was in some defined part of the nervous system a chronic inflammation of traumatic origin, and another maintained that there was no inflammation but only (so-called) functional disorder, or no lesion of any kind, each should give his reasons in such a form that they could be submitted to a selected neurologist of judicial position and rank. In respect of the causation of accidents, he drew a distinction between essential, determining, and contributory causes. If in a mass of interdependent organs like the body a lesion produced by mechanical or other force gave rise to a succession of alternating effects and causes, the injury must be held responsible for all of them. As for the meaning of the word "accident," it was variously interpreted in their own interest by different contending parties, and the author doubted whether any condition or event which might be expected to occur in, and as a part of, the ordinary day's work, anything foreseen and certain to happen often or even occasionally, could properly be called an accident. Hence special terms and agreements should be made for hazardous occupations.

Bronchoscopy.

Dr. A. D. SHARP, in a paper on modern methods of examining the larynx, trachea, bronchi, and oesophagus, pointed out that unnecessarily strong solutions of cocaine were generally recommended, and that a perfect anaesthesia could be obtained by using a 5 per cent. spray for the pharynx, 10 per cent. application for the posterior surface of the epiglottis, and 10 to 15 per cent. for the trachea and bronchi. He attributed cases of temporary aphonia following bronchoscopy to faulty anaesthesia and indifferent manipulation. In order to get an extensive view within the trachea the distal end of the bronchoscope must be controlled so as to keep it in the centre of and parallel with the trachea, as there was a tendency for the end of the tube to direct itself against the anterior wall. Care must be exercised in withdrawing the tube as slowly as it was introduced, to prevent the end tilting against the trachea or against the cricoid and arytenoids.

MEDICAL SOCIETY OF LONDON.

Exhibition of Cases.

AT a clinical meeting on April 26th, Mr. C. B. LOCKWOOD, President, in the chair, the following were among the cases shown:—Dr. F. J. POYNTON and Dr. W. L. SCOTT: Three cases of *Recurrent familial jaundice* in which the predominance of anaemia was striking, and jaundice, though at times marked, occurred only in definite attacks. Mr. V. WARREN LOW: A case of *Congenital dislocation of the hip-joint* treated by manipulation in 1905, resulting in the child walking without a limp, and being able to run and skip. Mr. T. H. KELLOCK: A case of *Traumatic meningo-encephalocele* cured after lumbar puncture; slight pressure was also applied to the tumour. The child was now shown, more than two years after the treatment. Dr. F. PARKES WEBER: A case of symmetrical *Atrophy of hand muscles* with cervical ribs; skiagrams were exhibited showing cervical ribs in a younger brother and a sister of the patient without atrophy in the hand muscles. Dr. WILLIAM HILL demonstrated direct vision laryngoscopy on a female from whom a growth on one vocal cord had been recently removed by endoscopic surgery; also tracheoscopy on a female with laryngitis and tracheitis; tracheo-bronchoscopy on a

female with laryngitis, tracheitis, and asthmatic symptoms; and oesophagoscopy on a female with functional dysphagia. Dr. LEONARD GUTHRIE: A case of *Progressive muscular atrophy* in a man 39 years of age showing weakness and atrophy of the intrinsic muscles of both hands, of the flexors and extensors of both forearms and of both bicipital muscles.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY. — At a meeting on April 2nd, Dr. SEYMOUR TAYLOR in the chair, the following were among the exhibits: Mr. PARDOE: A case of complete extensor paralysis of the arm after *Excision of the elbow*. The scar was dissected out, and the musculo-spiral nerve found to be cut through just above its division. Anastomosis was performed by end-to-end suture. Dr. PALMER: A case of *Habit spasm* in which irregular spasmodic movements of the face, neck, head, and trunk muscles were markedly present. Mr. N. BISHOP HARMAN: A case of senile cataract with infantilism in a man of 50 years, with the physique of a fat boy and penis of a boy of 2 years of age; he had a well-formed scrotum, but no testes. Mr. E. ARCHIBALD SMITH: A painless *Tumour of the tongue* of ten years' duration in a young woman aged 18, probably a lymphangioma. Dr. SEYMOUR TAYLOR: The heart from a patient who developed a loud heart bruit which was thought to be caused by a torn aortic cusp. After death it was found to be due to an inflammatory thickening of the aorta wall itself. Dr. HALLS DALLY (for Dr. ABRAHAM): A case of *Tricophyton endothrix* in a man aged 20, which he held to disprove the statement of Sabouraud of Paris that the disease did not occur in the adult.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 20th, Dr. T. JASON WOOD in the chair, the following were among the exhibits:—Mr. HORROCKS: Concretion from an appendix which had burst through into the bladder and become coated with phosphatic deposit. Mr. F. W. GOYDER: A case of serous meningitis treated by drainage through the posterior fossa of the skull. Mr. PHILLIPS, in opening a discussion on the surgical side of *Acute appendicitis*, divided the disease into three types. In the first, the "simple type," there was a certain amount of abdominal pain, tenderness in the right iliac fossa, some fever, and quickening of the pulse. The treatment should be: (*a*) Absolute rest in bed; (*b*) nothing except water allowed by the mouth; (*c*) clearing out the lower bowel by an enema; (*d*) if necessary a simple carminative mixture. The second type was Type 1 with the addition of swelling in the right iliac fossa. Cases could safely be left till things quieted down. Operation was not advisable at first, as, owing to adhesions and inflammation, it was usually a very difficult procedure. The third type was the gangrenous class—that in which the catastrophes occurred. Diagnosis was very difficult. It rested chiefly on the facial expression and the rigidity of the segment of the rectus muscle overlying the appendix. Immediate operation was the only treatment. The best incision was one just above Poupart's ligament. The pus should be mopped out and a gauze drain inserted. On no account should the peritoneal cavity be washed out. Dr. HONEYBURNE, opening the discussion on the medical side, said the main question in any case was, How much is the peritoneum involved? The main point in the treatment should be to keep the inflammation of the simple adhesive variety. This was to be done by absolute rest for the inflamed part, and not only should no food of any sort be given, but the bowel must not be disturbed by enemata or any other method of evacuation. A diagnosis established, morphine should be given in full doses, and continued as long as there was pain or tenderness. Operation was never required except in the gangrenous cases. In those, immediate operation gave the only chance. Mr. HORROCKS found that in Type 1, leeches and calomel in two-hourly doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain, followed by an enema, were both useful. In the second type, where the swelling was to the inner side of the iliac fossa, careful watching was required, as the abscess was very liable to track down into the pelvis. Dr. RABAGLIATI said that, in his experience, if left alone the abscess frequently burst into the bowel, and Nature completed the cure. Dr. T. G. WOOD did not think Type 2 was always safe to leave untouched. The most logical course was to operate in all cases as soon as diagnosed. In this way no harm was done in the cases classed as Type 2, and the gangrenous cases, being taken early, were given the best chance of life. Dr. CAMPBELL agreed that such a course was logical, but it was not always practicable.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on April 21st, Dr. P. BOOBBYER, President, in the chair, Dr. A. C. REID read a paper on the value of *Ehrlich's diazo reaction* to the general practitioner. In this he pointed out the diagnostic value of the test in early cases of enteric fever. The disease must, however, have reached a certain stage before the reaction was present. When this stage had been arrived at the reaction was in his experience constant. It was also constantly present in miliary tuberculosis, but the differential diagnosis of typhoid was not so difficult from that disease as from febricula, gastric fever, abdominal influenza, low bronchopneumonia, etc. The reaction did not merit the neglect it received from the general practitioner. As a negative test it occupied a foremost place, and as a positive reaction when taken in conjunction with other signs, tests, and symptoms it had considerable importance. The PRESIDENT and Drs. F. H. JACOB and O. KENTISH WRIGHT confirmed the value attached to this test by Dr. Reid. In opening a discussion on *The Notification of Births Act, 1907*, Dr. A. J. SHARP traced the changes brought about by the Act in the matter of time, of stillbirths, exemption of the mother, and penalty attaching to medical attendants. He discussed the question as to how far a new duty had been laid upon the medical practitioner. Explaining the object of early notification as the first step in a movement for the reduction of infant mortality, he reviewed the various measures which had already been put into operation. Amongst these were baby-shows, bounties payable on the child attaining a certain age, systematic visitation by voluntary or paid workers, mothers' and babies' welcomes, the encouragement of maternal suckling, day nurseries, milk dépôts, school instruction in hygiene, and general sanitary progress. Tracing various objections to the Act, that on the score of professional secrecy was the most serious and persistent, but this had no basis of support in law when a duty became public and statutory. Indeed, as regarded children not born in wedlock, they were above all others the ones who most needed the strong arm of the law to protect them. Their death-rate was at least double that of legitimate children. Dr. S. E. GILL, continuing the discussion, emphasized the point that at the Nottingham Welcome no medical treatment of mothers or infants was attempted, but everything else that could be done in the way of encouraging the poor and inexperienced mother to feed, clothe, and tend her babe in a rational and hygienic way was done. In this way the more intelligent mother would act as a focus of knowledge and an example in her neighbourhood by which the general standard of infant hygiene and parental responsibility might be gradually raised. Indeed, the more aristocratic mothers might indirectly become more disposed to fulfil their natural obligations to their infants, which at present were apt to be shelved in favour of the theatre or playing bridge. The PRESIDENT pointed out that the Nottingham Welcome, although it had only been in existence about eight months, had already secured an average attendance of 200 babies per month. C. L. ROTHERA, Esq. (Nottingham City Coroner), agreed that the subject of infant mortality was one very vital to the health of the nation, and pointed out that the Children Act, 1908, laid down medical aid as a necessary which parents were compelled to provide for their children. He also drew attention to the elaborate system prevailing at Leipzig and elsewhere in Germany, by which children were examined weekly at a central dépôt, so that any defect in the matter of health could be promptly detected and dealt with. The discussion was continued by Drs. J. WATSON, J. A. WARING, and W. HUNTER. Dr. W. TIBBLES showed a Siamese gentleman, aged 19, the subject of *Chronic oedema* of one hand and forearm of eighteen months' duration. The case had been carefully examined by Mr. James Cantlie, who had considered the possibilities of its being due to local irritation, synovial inflammation, filaria, ankylostomiasis,

and angio-neuroses, such as urticaria exaggerata, etc A guess had been hazarded that it might be rheumatic, but there was no reason to attribute it to tubercle or specific disease. Blood examination had shown eosinophile corpuscles to be excessive, which rather suggested an intestinal infection. Indicanuria also existed, raising a suspicion of disturbed proteid metabolism. Treatment by bandaging the hand in thick wool, sour milk internally, and a mixture of ol. ricini cum ol. eucalypti had brought about some improvement, but a careful search in the stools had failed to reveal any parasite. Dr. R. B. PURVES (Lincoln) showed a myomatous uterus with the deflected cavity resulting; and Dr. F. H. JACOB showed microscopic specimens of *Diplococcus intracellularis* from a case of epidemic cerebro-spinal meningitis.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.—At a meeting in Manchester on April 23rd, Dr. J. W. MARTIN (Sheffield), President, in the chair, Dr. H. BRIGGS (Liverpool) showed two specimens of *Haematometra* removed by the abdominal route. In each case the retention of menstrual fluid was due to congenital atresia of the cervix. The patients were unmarried women, aged 32 and 35 respectively. Microscopical examination of the uterine wall showed a great excess of fibrous tissue and an absence of the glands of the endometrium. Dr. A. DONALD (Manchester) read notes of a case of bilateral *Abscess of the uterine appendages* occurring during pregnancy. Three weeks after spontaneous premature delivery each abscess was drained extraperitoneally through an anterior colpotomy incision. A marked improvement in the patient's condition immediately followed, but two weeks later symptoms of acute peritonitis appeared. On opening the abdomen a ruptured pyosalpinx was found and removed. Since then the patient had made a steady recovery. Dr. J. H. WILLETT (Liverpool) showed the specimen from a case of *Caesarean section* and abdominal hysterectomy for carcinoma of the cervix complicating a seven and a half months pregnancy. The patient was a multipara, aged 34. Irregular haemorrhage commenced at the end of the first month; later the discharge became offensive. The vagina was divided between clamps, but no attempt was made to excise the pelvic connective tissue. No enlarged glands were found. The mother made a good recovery, but the infant died when about 4 weeks old. Dr. W. BLAIR BELL (Liverpool) read the notes of a case of acute *Puerperal sepsis* with thrombosis of the ovarian veins, which were ligatured and excised without success. Death occurred sixteen hours after the operation. The details of a very complete bacteriological study of the case were given. Dr. Bell was of opinion that when septic thrombosis of the ovarian veins is diagnosed immediate ligation and excision should be practised. The PRESIDENT and Drs. BRIGGS, DONALD, and LEE argued that the operation in such cases was useless. Dr. A. DONALD (Manchester) read a note on the use of gauze drainage in certain cases of puerperal sapraemia in which retention of lochia occurs from sharp anteflexion of the uterus with sagging of the body. Toxaemic symptoms due to decomposition generally arose, he said, on the eighth or ninth day or soon after. Immediate improvement followed intrauterine douching, but renewal of the retention and of the symptoms was apt to occur. This was best avoided by the use of a gauze drain.

A REPORT by Mr. Warburton, F.Z.S., to the Local Government Board (New Series, No. 2, price 2d.), on a preliminary investigation on flock as a possible distributor of vermin, contains some information on the life-history of the body louse. It appears that not only the eggs but the lice themselves may pass through a flock-making machine without being crushed; the lice, however, are incapable of surviving more than three or four days without food, so that it is extremely unlikely that any of them would be alive when the flock was converted into bedding. The eggs, however, may take any period from eight days to five weeks to hatch, so that it is possible that living eggs might be present in flock bedding. The period of development from larva to imago is eleven days, after which there is a non-functional mature condition lasting four days. Adult life has been shown to endure for three weeks in the male and four in the female.

Reviews.

IMMUNITY.

FOR several years Sir A. E. WRIGHT'S work on vaccine therapy and the significance of the opsonic index has been the subject of much discussion and no little divergence of opinion. The title of his new work, *Studies on Immunization*,[1] led us to hope that here the author would clear up many difficulties which beset the subject by giving a full exposition of his present standpoint and meeting, fairly and squarely, the criticisms which many pathologists of repute have raised. We find, however, that the volume is less helpful than might be expected. It is a reprint of various papers published during the last twelve years, partly by Sir A. E. Wright, partly as the conjoint work of Sir A. E. Wright and various other pathologists, and, in a few cases, by Drs. Bulloch, Atkin, Western, and Keith. Only three of the papers have been revised; the rest have been reprinted without any change except the omission of detailed descriptions of technique. In expressing disappointment with this mode of presenting the subject we cannot do better than quote Sir A. E. Wright's own words. He admits that "no collection of separate papers, such as is here presented, can possess such an organic unity in its structural design as would enable the reader who is referring to the book to place his finger upon the place where the particular point he is in search of might properly be found." Careful examination of the contents of the book proves that the author's criticism is thoroughly justifiable. For this candidly admitted defect he has endeavoured to make amends by elaborating the index, which he describes as "something in the nature of an orderly synopsis." He relies on his index also as a means of silencing adverse criticism. "I have also found in the index an agency through which replies might be furnished to certain of my critics. By making use of the index as a finger-post, I have pointed these critics in each case to an impersonal reply inscribed in the text. It is a method of rejoinder which I would venture, with all submission, to recommend." This is a brilliant suggestion, revealing vistas of advance in medical literature. The BRITISH MEDICAL JOURNAL, for example, is constantly engaged in combating statements in conflict with its opinions previously enunciated; but it has not hitherto assumed that the task of direct comment upon these matters is rendered superfluous by the publication of a copious index every six months. The moment when Sir A. E. Wright has proved that adverse critics can be silenced by the publication of an index will be awaited on the tiptoe of eager expectation. The reprints in the present volume do not call for renewed criticism, but they form a very useful collection of important articles on agglutinins, bactericidins, opsonins, and the methods and results of vaccine therapy.

Studies on Immunity, by Professor MUIR of Glasgow, with the collaboration of Drs. BROWNING, FERGUSON, and MARTIN,[2] is another volume of reprints. In it are reproduced, with some alterations and a few addenda, articles which have been published in various journals during the years 1903–9. They deal with the properties of haemolytic serums, the deviation of complement, and the antibacterial properties of serum. To the select circle of pathologists who devote themselves to the study of immunity Professor Muir's investigations are already well known, but it will doubtless be a convenience to these workers to obtain in one volume a variety of important articles which have hitherto been distributed over various journals. It is disappointing to find that Professor Muir has not endeavoured to appeal to a wider audience. His reputation as an authority on immunity research stands so high that a general survey from his pen of the present position of the science of immunity would be accepted as reliable by a very large circle of medical readers, and would help to remove some of the confusion to which conflicting statements about the subject have given rise. Unfortunately, as the author

[1] *Studies on Immunization.* By Sir A. E. Wright, M.D., F.R.S. London: Archibald Constable and Co., Ltd. 1909. (Med. 8vo, pp. 506. 16s.)

[2] Oxford Medical Publications. *Studies on Immunity.* By Robert Muir, M.A., M.D., in collaboration with Drs. C. H. Browning, A. R. Ferguson, and W. B. M. Martin. London: Henry Frowde, and Hodder and Stoughton. 1909. (Demy 8vo, pp. 228. 7s. 6d.)

frankly confesses, in the present volume "no attempt is made to give a historical review of the whole subject; due reference is, however, given to the results of others, available at the time of first publication, in connexion with the various subjects discussed." That saving clause, "available at the time of first publication," provokes us to raise a word of protest. The volume before us is published and advertised as a new book, bearing the date 1909. Then why does it not undertake to give due reference to all such results as were available up to the date of going to press? The time of first publication of the articles now reprinted is a matter of relatively little importance to the reader; but recent contributions to the science of immunity are numerous, and the reader has a right to expect that what is published now should be thoroughly brought up to date. Among the many interesting essays in the volume special attention may be called to that devoted to the scientific principles underlying opsonic action—a subject where we are always glad to have the trustworthy guidance of Professor Muir's sound observation and shrewd criticism. His general conclusion is that in the case of normal serums the opsonic effect is usually due to the labile non-specific complement, which may act with or without a natural immune body. In this respect he finds a close parallelism between opsonic and normal bactericidal action. In the case of immune serums, he observes, the opsonic effect may be increased by immune bodies leading to the union of more complement; but there is, in addition, the formation of immune opsonin (bacterio-tropin), which produces an opsonic effect by itself, and possesses the constitution of an agglutinin.

TROPICAL HYGIENE AND PATHOLOGY.

Books dealing with questions of hygiene as applied to the tropics are not very common, so the volume entitled *The Principles of Hygiene as Applied to Tropical and Subtropical Climates*,[3] by Professor Simpson, is very welcome. Many students of tropical medicine have listened to these lectures, delivered by the author at the London School of Tropical Medicine, and many have no doubt often wondered why they have never been put into book form. The treatise is a good one, and will supply a long-felt want. Its pages are filled with personal observations. Water supplies, purification and examination of water, take up four chapters, food and food supplies three, conservancy or collection and sewage two; soil and drainage, hygiene in relation to streets, houses, etc.; sanitation of gaols, communicable diseases, and village and town sanitation in relation to malaria and other diseases caused by mosquitos occupy each one. There is little to criticize adversely in the book. Perhaps more might have been made of the chapter dealing with diseases spread by mosquitos. Here there is no very definite distinction drawn between domestic or house and wild or forest and jungle mosquitos. As the means required to deal with these different varieties differs very greatly more detail would have been useful. The question also of the prevention of malaria in campaigns, and for single individuals travelling through the bush and living in tents, might well have had a chapter to itself. Still, space must be considered, and no doubt Professor Simpson had this in his mind when he refrained from a fuller discussion of the malarial question. The work is dedicated to Sir Patrick Manson—a fitting compliment. The book, which is uniform in style and shape with the *Studies in Laboratory Work* by Daniels and Stanton, and therefore of convenient size, ought to meet immediate success, and have a long life before it.

An epitome of exotic pathology[4] is a recent addition to the series published under the general title *Précis Médicaux*. It is written by Professor Jeanselme and Dr. E. Rist, of Paris, and the type, appearance, and general style of the book at once recall the well-known manual on tropical diseases by Manson; the resemblance is enhanced by the presence in it of several diagrams and figures borrowed from the latter. Judging it from this standard it is seen to be fuller, diseases such as typhoïde bilieuse (infectious jaundice), syphilis, intoxications, illnesses produced by climate, ocular manifestations, and cosmopolitan maladies such as pneumonia, rheumatism, tetanus, and tubercle, being included. Where it falls short of the standard is that its authors do not seem to have the personal acquaintance with many of the diseases which is necessary to enable them to write clearly about them. Such being the case, the information must be second-hand, and being often collected irregularly and not sifted thoroughly the summary becomes uninteresting, especially to those who know the subject and have worked at it. Examples are numerous throughout the book, but reference need be made only to kala-azar, beri-beri, yellow fever, sleeping sickness, and filariasis. The chapter on sleeping sickness (human trypanosomiasis) is specially poor; the clinical description of the disease is muddled, the blood changes find a minute place in the pathological anatomy, and the lymphatic changes are dotted into the diagnosis. The importance attached by Todd to enlarged glands as a means of diagnosis is condemned by the work of the recent French Commission; but if the authors had read the first clinical reports of the Royal Society's Commission to Uganda, they would have seen that this had already been demonstrated years before. There is a distinct tendency throughout the book to utilize recent French work to the exclusion of work done long ago in other countries; and though this can easily be understood, nevertheless it spoils the value of the book. In the chapter on *Schistosomum japonicum* the name of Catto does not once appear; as he discovered this parasite independently and was the first to bring the subject prominently before helminthologists in Europe, this is, to say the least of it, strange. Amongst the points worthy of notice in the book are the discussions on the differences between syphilis and yaws and between amoebic and bacillary dysentery. The authors, in accord with the general opinion of the present day, agree that these differences are real. After what has been said above, one would expect a very prejudiced or French account of sprue, and that is what we find. The disease is termed the chronic diarrhoea of warm climates, or Cochin China diarrhoea—both equally bad terms—and the account of the disease is very poor. The book, then, to sum it up, is written from a one-sided point of view, and though it is useful at times to see how others look at things, it cannot be recommended—certainly not to students in this country.

The pamphlet entitled *Malarial Fevers*, and described as "drawn up for the use of assistant surgeons, hospital assistants, and students," by Major S. P. James, I.M.S.,[5] admirably answers its purpose. Though couched in simple language the text is quite full enough to give a very good idea of the subject; scientific terms are carefully explained. In the part dealing with the diagnosis of malarial fevers (p. 65) no reference is made to the value, as a means of differentiating many of the different fevers, of blood counts—a method which should be within the reach of those for whom the book is intended; the estimation especially of the leucocytes in many cases at once makes the diagnosis clear. If leucocyte counts were more frequently made in ordinary home medicine as well as in tropical medicine fewer mistaken diagnoses would be made. A very useful chapter of the book is that on treatment and prevention. Properly applied treatment certainly has an extraordinary effect in reducing the mortality from malaria and has robbed the disease of many of its terrors. Prevention, however, is better than cure, and Major James's students will find this fully discussed as well. Short and to the point are the characteristics of this eminently useful and practical pamphlet.

[3] *The Principles of Hygiene as applied to Tropical and Subtropical Climates, and the Principles of Personal Hygiene in them as applied to Europeans.* By W. J. R. Simpson, M.D., F.R.C.P., D.P.H., formerly Health Officer of Calcutta, Lecturer on Tropical Hygiene at the London School of Tropical Medicine; Professor of Hygiene, King's College, London, etc. London: John Bale, Sons, and Danielsson, Limited. 1908. (Demy 8vo, pp. 408. 15s.)

[4] *Précis de Pathologie Exotique.* Par E. Jeanselme, Professeur agrégé à la Faculté de Médecine de Paris; et E. Rist, Médecin des hôpitaux de Paris, Ancien inspecteur général des services sanitaires, maritimes et quarantenaires d'Egypte. (De la Collection de Précis Médicaux.) Paris: Masson et Cie. 1909. (Post 8vo, pp. 821, 160 figures et 2 planches. Fr. 12.)

[5] *Malarial Fevers—A Statement drawn up for the Use of Assistant Surgeons, Hospital Assistants, and Students.* By S. P. James, M.D. Lond., D.P.H., Major Indian Medical Service. Third edition, rewritten and enlarged. Issued under the authority of the Government of India by the Sanitary Commissioner with the Government of India. Simla. Calcutta: Superintendent Government Printing, India. 1908. (Cr. 4to pp. 94.)

THE ACUTE SPECIFIC FEVERS.

To devote a volume of a hundred and fifty pages and nearly as many illustrations to the diagnosis of a single disease, suggests a superfluity of words and work. We cannot, however, accuse Drs. RICKETTS and BYLES of verbosity or waste of energy in their book on *The Diagnosis of Small-pox*.[6] If there is a disease which is worthy of the distinction we have mentioned, it is small-pox. This loathsome, fatal, and highly-infectious disorder is never at the present day so continuously our companion as to accustom us even to its usual guises, yet its visits are sufficiently frequent to render us all liable to receive one, and evil is the day on which we fail to recognize the dangerous visitor. The most interesting and important portion of the book is contained in the second, third, and fourth chapters, which deal with the distribution of the eruption. Dr. Ricketts has previously told us that evidence from the distribution of the pocks is more valuable in diagnosis than evidence from their character. In these chapters, the theme that irritation of the skin largely determines the distribution is worked out in detail, and with such a wealth of illustration, verbal and pictorial, that the reader can hardly fail to carry the essential points in his memory. Another excellent chapter is the fifteenth, in which the differential diagnosis between small-pox and chicken-pox is discussed. The importance of this chapter will be recognized from the statement made on page 1, that "two-thirds of the errors in the diagnosis of small-pox arise from its confusion with chicken-pox." All the common, and most of the rare, diseases that are confounded with small-pox are amply reviewed, but we miss references to purpura haemorrhagica and acne varioliformis, diseases for which we have known small-pox to be mistaken with disastrous results. To discuss the pathology of the disease is outside the author's intention, but an expression here and there, hinting at a pathological hypothesis which we believe to be new, serves to whet our desire to have from Dr. Ricketts's pen a full exposition of his ideas on this subject. We are the more inclined to urge him to this task because it is some time since we have read a work by a new medical writer composed in a style so pleasant as the one under review. Of Dr. Byles's share of the work we have nothing but praise. The half-tone reproductions in black and white of his photographs, many of them stereoscopic, are a sufficient refutation of statements that have been made by some writers that photographs are of little, if any, value in the portraiture of cutaneous eruptions. The coloured plates, produced from triple negatives taken directly from life, are admirable, and are a feature of the book. Altogether this volume is one which, in places and times when small-pox is likely to be rife, no medical man who is unacquainted with the disease can afford to be without.

It is well known to those whose experience of the acute infectious diseases is at all extensive that during their course rashes, other than those which are distinctive of these diseases, not infrequently occur. They have been called by English writers "septic," "secondary," or "accidental," but little has been written about them either in this country or abroad, and that only in a desultory way. Dr. MARCEL POISOT has done good service, therefore, in collecting together in his book on erythematous eruptions of a severe nature[7] the facts and hypotheses relating to them. The rashes in question are of various kinds; the commonest is a morbilliform erythema most marked upon, if not confined to, the extremities, but they may be scarlatiniform, urticarial, vesicular, purpuric, or varieties of erythema multiforme. Perhaps they are met with most commonly in scarlet fever, especially in scarlatina anginosa, but they are not rare in diphtheria and enteric fever. They have also been observed in outbreaks of sore throat due to milk. Amongst the various questions discussed by Dr. Poisot, the most interesting are those relating to the contagiousness and pathogeny of the "syndrome," which usually consists of rash, vomiting and diarrhoea, ulceration of the lips, prostration, and a fall of temperature. The cases are sometimes observed to occur in small groups, a fact which suggests the infection of one patient by another. But the author easily disposes of this hypothesis. The pathogeny is by no means clear. Various writers have from time to time suggested that these cases are aberrant forms of the common infectious diseases, or drug rashes, or due to different bacteria or their toxins, especially streptococci, the *Enterococcus proteiformis* of Thiercelin, the *Bacillus typhosus*, and the *Bacillus coli*. But here again Dr. Poisot has no difficulty in showing that the evidence in favour of these agents is by no means strong. The view of the cause of the syndrome favoured by the author is that which attributes it to insufficiency of action of the large glands, especially the liver and the kidneys, and that this insufficiency is dependent upon degenerative changes in the parenchyma produced by bacterial toxins. We doubt, however, whether this view explains all the cases—for instance, those in which the syndrome makes its appearance during the course of a slight attack of an infectious disease. The more probable view seems to be that the symptoms are produced in much the same way as are those of the so-called "serum disease," possibly by the circulation in the blood of some toxic body formed by the combination of the original foreign substance and its antibody. But we confess that this view is, perhaps, more speculative than those propounded by Dr. Poisot.

We regret not to be able to say very much in favour of Dr. R. W. MARSDEN'S *Practical Textbook on Infectious Diseases*.[8] It seems to us neither to justify its title nor to come up to the reputation of its author. No one can accuse Dr. Marsden of lack of experience, and we can only suppose that he has been hampered in the production of this volume by want of time for revision and verification, and of space for explanation. Pathological matters are inadequately treated, and on the practical side lumbar puncture and intravenous injection are no more than mentioned, Widal's reaction is inadequately described, and methods of disinfection are not discussed. Even if we admit with the author that the larger books and the articles in the various systems of medicine are too full of detail to be useful to busy men except for reference, and that there is room for a small textbook which shall "briefly outline our newer conceptions of these diseases," we do not think that the volume before us carries out his idea of what such a work should be. Even for an outline it is too sketchy and indefinite.

Dr. LANGFELD'S *Infectious and Parasitic Diseases*[9] was primarily intended for nurses, but on the advice of his friends he incorporated additional matter with the object of enhancing the value of the book for physicians and students of medicine. Apparently the account of the malarial parasite's life-history and the chapter on "the portals of entry and avenues of exit of micro-organisms in the various diseases" are examples of this desire to cater for the latter class of reader. The result is an unfortunate jumble. The introduction of a few highly technical details cannot possibly raise the book to the standard of the average textbook designed for medical students, whilst these matters are quite outside the sphere of a hospital nurse, and, from the nurse's standpoint, the less technical matter falls far below the standard of nurses' handbooks written by many English authors. The composition is slovenly, and there is far too much padding. A few examples may be quoted at random. "In this matter of the exit of micro-organisms from the body in disease we have the key to the happiness of families, the prosperity of nations, and to victory in wars." The common flea is described as "a minute red or dark-brown insect which is only parasitic upon man in countries where it is present in

[6] *The Diagnosis of Small-pox*. By T. F. Ricketts, M.D., B.Sc., M.R.C.P.Lond., Medical Superintendent of the Small-pox Hospitals of the Metropolitan Asylums Board; illustrated from Photographs by J. B. Byles, M.B., B.C.Cantab., F.R.C.S.Eng., Senior Assistant Medical Officer of the Small-pox Hospitals. London: Cassell and Company. 1908. (Med. 8vo, pp. 170. 21s.)

[7] *Les Erythèmes Graves (Syndrome Erythémateux), principalement au cours de la Fièvre Typhoïde*. Par le Dr. Marcel Poisot, ancien interne des Hôpitaux de Paris, etc. Paris: Jules Rousset. 1908. Sup. roy. 8vo. pp. 210, with charts and one illustration.)

[8] *A Practical Textbook on Infectious Diseases*. By R. W. Marsden, M.D., M.R.C.P., formerly Medical Superintendent, Monsall Fever Hospital. With a chapter on Puerperal Septic Disease by A. Knyvett Gordon, M.A., M.B., Medical Superintendent, Monsall Fever Hospital. Manchester: The University Press. 1908. (Cr. 8vo, pp. 304. 5s.)

[9] *Introduction to Infectious and Parasitic Diseases*. By Millard Langfeld, A.B., M.B., Professor of Bacteriology, etc., Omaha, U.S.A. London: Rebman Limited. 1908. (Post 8vo, pp. 276; 35 illustrations. 5s. 6d.)

great numbers. It is particularly troublesome in hot countries." "With one exception, that is, in consumption, the sputum is chiefly dangerous to those immediately surrounding the patient." "The modern method of food distribution is a marvellous development, that is comparable to other inventions of the 19th century." The author says in the preface to his book that most of it was written "during moments snatched here and there between urgent duties"; it certainly bears the impress of hasty writing, and we cannot compare it favourably with many books upon which more time and labour have been expended.

DISEASE AND INJURIES OF JOINTS.

In this recent work on *Injuries and Diseases of the Knee-joint*[10] Sir William Bennett has dealt with his subject in the form, not of a systematic treatise, but of a series of clinical essays, devoted almost exclusively to questions of clinical and practical import. In this way some of the results of long and wide experience and of skilled observation are given to those who, though in active surgical practice, would be ready to welcome information which the eminent author himself, as he acknowledges in his preface, would have been glad to have had at his disposal some years ago. This information, it need hardly be stated, is very clear and definite, and is given in a style well adapted to afford sound and, in many respects, quite fresh instruction to practical men. In the fifteen chapters here devoted to a long list of traumatic and pathological conditions involving a large and complex joint the practitioner will find much help when confronted with doubtful questions as to the nature and the proper treatment of a perplexing case. Many useful hints are given on points of diagnosis; attention is directed to what seems to have been hitherto unrecognized, though, as Sir William Bennett shows, they are not infrequent, forms of articular effusion, and among other important suggestions on treatment objection is raised to indiscriminate use of retentive appliances in cases of injured or diseased knee. An introductory chapter on certain points in the normal anatomy of the knee, viewed from a clinical standpoint, is followed by a full and practical review of the different forms of intra-articular effusion. In these, and especially in two subsequent chapters on slipped cartilage, the author gives a lucid and helpful analysis of diagnostic signs, and very judicious teaching on the favourable and the doubtful conditions of active surgical treatment. Here and there the reader is reminded of the value of the Roentgen rays in diagnosis, even in cases in which such method of investigation is commonly thought to be futile; of the evils of prolonged immobilization in many forms of injury and disease; and the necessity before opening the affected joint for exploratory or therapeutical purposes, of inquiry into the general condition of the patient. The clinical teaching on most of the subjects is helped and not, as so often occurs, unduly encumbered by clinical records. A glance at the titles of the concluding chapters of this instructive book will show that Sir William Bennett has presented a full and comprehensive review of the modern surgery of the knee. In the chapter on injuries in and about this joint he deals with the operative treatment of fracture of the patella, and in the closing pages expresses a favourable though not unqualified, appreciation of Bier's method of induced hyperaemia, which he regards as being in certain cases a valuable adjunct to other methods of treatment.

The seventh fasciculus of the *Nouveau Traité de Chirurgie* of Professors Le Dentu and Delbet is entitled *Maladies des Articulations*, and is written by Professor Mauclaire and Dr. Dujarier.[11] In this category injuries which have been already dealt with in the fifth fasciculus are not included, and although a great part of the seventh is devoted to tubercle, the whole of the eighth also, by Dr. Ganggolphe, will deal with tuberculous arthritis. In this seventh fasciculus Professor Mauclaire is responsible for the articles upon infectious and non-infectious inflammatory arthritis and on ankylosis and articular tumours, and Dr. Dujarier for those on foreign bodies, arthritis deformans, and arthropathies of nervous origin. The authors take a broad view of their subject and discuss its many problems in pathology and treatment with moderation and judgement. While they hardly lay stress enough on the importance of conservative treatment, especially of tuberculous disease, they are not members of the impatient forward school, whose motto might be "Operate! Operate! and again Operate!" No such appalling list of (so-called) excisions of the hip as that recorded by Konig is to be found here, but at the same time hardly enough consideration is given to the ambulant treatment of tuberculous joints of the lower extremity, so ably advocated by H. O. Thomas and in America. The work of Thomas is so generally ignored on the continent of Europe, that we are not surprised to find no mention of it in a French treatise. No descriptions of operations or of apparatus are given, except in the chapter on ankylosis, possibly because such matters are to be treated in other volumes of the work. Generally speaking, more consideration and space is devoted to classification and etiology than to treatment. Professor Mauclaire admits two forms of articular tuberculous arthritis, typical and atypical. The latter class he divides again into six other forms, and the last of these, the synovial form, is again subdivided into seven varieties. This classification is made from an anatomical point of view. From a clinical standpoint, the abnormal class is divided into eight varieties, several of which are subdivided again. Four forms of tuberculous rheumatoid arthritis are mentioned; this is a disease of which very little is heard in this country, and its claims to be considered a pathological entity are hardly admitted by British pathologists. "Growing pains," Professor Mauclaire thinks, are an indication of bone or joint tuberculosis or osteomyelitis. Many pediatrists think that they are evidence of rheumatism. As to treatment, Professor Mauclaire's personal experience of Bier's hyperaemic method has not been favourable. Immobilization is the most important principle. Injections of zinc chloride into the tissues around the joint, as recommended by Lannelongue, have, says Professor Mauclaire, given remarkable results, especially in children. Failing expectant treatment, arthrotomy, arthrectomy, excision, and, as a last resort, amputation are to be the rule; but excision should be seldom done unless previous arthrectomies have failed to arrest the disease. The sections on syphilis and gonorrheal affections of joints are adequate, but here again we venture to think that there is an over-refinement of classification. Loose bodies in joints and their treatment are well described by Dr. Dujarier, but we think a little space might well have been spared to discuss the best incisions for their removal. Subluxations of the semilunar cartilages are not included in this section. The same writer treats of arthritis deformans, without finding it necessary to mention the name of Paget. He mercifully does not try to emulate Pribram, who named twenty-one varieties of Charcot's chronic rheumatism. The fasciculus concludes with an interesting account of arthropathies of nervous origin, which, however, offer little scope for surgery except orthopaedic; but this kind of palliative treatment is almost ignored by the author. For hysterical arthropathies massage in an early stage, and later anaesthesia, general or spinal, sham operations, and electricity, are recommended. Pilgrimages to Lourdes or some other shrines of healing are also, it is said, to be tried; but these are surely outside the domain of surgery! Like the other parts of the *Traité*, this fasciculus is printed in clear type on good paper, and is well illustrated, but the French compositor is often unhappy in his rendering of foreign proper names.

FRACTURES OF THE UPPER EXTREMITY.

Dr. Borchgrevink of Christiania relates in his book on ambulatory traction treatment[12] some experiences which led him to abandon the use of fixation by means of plaster-

[10] *Injuries and Diseases of the Knee-joint*, Considered from a Clinical Aspect. By Sir W. H. Bennett, K.C.V.O., F.R.C.S., Consulting Surgeon to St. George's Hospital, etc. London: James Nisbet and Co., Ltd. 1909. (Cr. 8vo, pp. 236; 31 illustrations. 5s.)

[11] *Nouveau Traité de Chirurgie*. Publié sous la direction de A. le Dentu et Pierre Delbet. VII. *Maladies des Articulations*. Par Pt. Mauclaire et Ch. Dujarier. Paris: J. B. Baillière et Fils. 1909. 8 cp. roy. 8vo, pp. 288; 88 figures. Fr. 6.)

[12] *Ambulatorische Extensionsbehandlung der oberen Extremität*. Von Dr. O. Borchgrevink, Chirurg. Oberarzt des Diakonenhospitales zu Christiania. Jena: Gustav Fischer. 1908. (Sup. roy. 8vo, pp. 172; 93 Abbildungen. M. 4.50.)

of-Paris, and to devise the splints which he here describes for the treatment of fractures and some other injuries of the upper limb. Fourteen years' surgical practice in Christiania have offered great opportunities, of which the author has made the most. Not only are injuries common in the factories of that city, but the sport of ski-ing, which is popular with persons of all ages, produces its quota of accidents. One of the chief difficulties in applying traction in fractures of the arm or of the forearm (when the latter is extended) has been the want of a suitable point of counter-extension. The axilla not only bears pressure badly, but is also an unstable point, varying as the arm is abducted or brought to the side. Yet it is the only available point for direct counter-extension. To meet the difficulty, Dr. Borchgrevink makes the splint end above in a loop or a U-shaped fork which lies round the armhole of the waistcoat or bodice, to which it is fastened. To prevent this garment being pushed up by the splint, it in turn is held down by an elastic perineal band. Such a method of counter-extension is obviously of no use when the direction of traction must be at an angle to the axis of the upper arm, as in many forms of injury it should be. In that case the bearing is taken on the front of the arm above the elbow-joint.

In all cases the lower end of the splint is provided with a pulley on a stem, which projects beyond the end of the wooden splint. Adhesive plaster is applied to the part below the fracture with great care, and by means of a stirrup of plaster and a cord round the pulley, leading to a piece of rubber tubing at the back of the splint, any desired amount of traction can be made. The limb is otherwise only very loosely fastened to the splint, so as to avoid constriction of the soft parts. There are four forms of this splint: for the upper arm, forearm, hand and fingers, and a combined splint, which may be either angular or straight. All these are fully described, as is also the means of improvising them.

The advantages claimed for traction are that it overcomes the elastic contraction of the muscles, diminishes secondary reaction and pain in a marked degree, and corrects displacement better than any rigid method. The cases related and the Roentgen pictures reproduced in this book bear out these claims. As to callus formation, the author agrees with Bardenheuer that in an ideal union by first intention no callus is thrown out, and that callus is analogous to the fibrous tissue which results from suppuration in soft parts. Lucas-Championnière, on the other hand, claims the free production of callus as one of the merits of his method. Bardenheuer quotes 10,000 fractures of shafts of bones, and Borchgrevink 500 cases of fractures of the upper extremity without one case of pseudarthrosis. Besides fractures, this book treats of sprains, in which the effect of traction in relieving pain and preventing stiffness is as recorded most striking. The chapter on contracture and ankylosis is excellent. The author has not found electricity and massage of great value, and he cites the records of accident insurance in his support. He says: "The effort of will that brings a muscle into active contraction is better than all the electrical currents, and use maintains and restores muscle power better than any massage. Passive movements will overcome contracted antagonists, but the ground thus gained must be occupied by active movements, or it will speedily be lost once more." His rhymed motto may be rendered roughly, "Apparatus less, More success."

DIAGNOSIS AND TREATMENT OF MELANCHOLIA.

A PAMPHLET on the recognition and treatment of melancholia in practice, by Professor ZIEHEN of Berlin, formerly of Jena, was published in Parts II and III, vol. i, of the *Sammlung Zwangloser Abhandlungen aus dem Gebiete der Nerven- und Geisteskrankheiten*, edited by Professor Hoche of Freiburg. This small monograph is now deservedly in its second edition,[13] and, as one would expect from its source, forms a lucid, instructive, and practical guide to the diagnosis and treatment of this psychosis. Right or wrong in his conceptions, Professor Ziehen is always clear in his views and their expression, leaving no possibility of doubt as to his meaning. Melancholia is defined as a psychosis whose chief symptoms are (1) a primary, continued, motiveless, or insufficiently motived depression, and (2) a primary retardation of the course of ideal presentations or mental inhibition. The first symptom is never wanting, but the second may be transitory in certain circumstances. By "primary" it is meant that the depression or the inhibition, as the case may be, is not the result of other psychopathic symptoms—for example, is not, in the case of depression, the result of delusions, say of persecution; and in the case of inhibition is not produced by "fascinating" or engrossing hallucinations. Further, in melancholia the depression and inhibition are mutually co-ordinated, waxing and waning synchronously, even if, as a rule, the depression appears first and disappears last. Although Professor Ziehen's definition of melancholia would exclude many cases so classed in this country—melancholia forming only 16.4 per cent. of the female and 5.3 per cent. of the male admissions to the Jena asylum in the years 1886–1894—he does not agree with the growing Continental opinion that the term "melancholia" should be restricted to the depression of senile involution, and, indeed, shows that it may occur at any age, cases of true melancholia even in childhood having come under his observation. For the author's views as to the principal etiological factors of melancholia—its differential diagnosis, course, termination, and treatment—we would warmly commend this brief and admirable study to our readers. We may say, however, that Professor Ziehen considers that with proper asylum treatment over 90 per cent. of melancholics should recover, though this is without taking into consideration relapses which occurred in over 22 per cent. of his cases. Termination in secondary dementia is, he states, very uncommon, and occurs solely in the melancholia conditioned by arterio-sclerosis.

[13] *Die Erkennung und Behandlung die Melancholie in der Praxis.* By Geh. Med.-Rat. Prof. Dr. Th. Ziehen. 2nd edition. Halle-a.-S.: Carl Marhold. 1907. (Med. 8vo, pp. 67. M.2.)

TREATMENT BY HYPERAEMIA.

THE second German edition of Professor BIER on hyperaemia as a remedy was reviewed two years ago. The American translation by Dr. BLECH of Chicago is made from the sixth German edition,[14] a sufficiently remarkable testimony to the interest taken by Professor Bier's countrymen in the methods he has introduced into practice. A good many surgeons in this country have no doubt used the very simple means recommended, but they are not as popular or as widely known as they should be, for, although a good account of the method was published in English last year by Drs. Willy Meyer and Victor Schmieden, no translation of Professor Bier's book has hitherto appeared in English, and we hope Dr. Blech's translation will be widely read. The present volume contains only a few additional pages, including chapters upon the treatment of teno-synovitis crepitans and keloids. The hot-air apparatus, which Professor Bier regards as a very important part of his method, is very inexpensive, and in his opinion quite as efficient as the appliances for radiant heat, the use of which can only be obtained in large towns or public institutions or health resorts, while the very simple and economical method of treating tuberculous joints by elastic bandages is one which any practitioner, however situated, can carry out. The translation is in the theoretical parts rather obscure, owing probably to Dr. Blech being a German, and being therefore accustomed to think in the idiom in which the book is written, so that in this respect it is somewhat difficult for English readers to follow. It is strange to see in a book published in English the reference to John Hunter's work on *Inflammation* given only in the German translation published at Leipzig in 1797, four years after Hunter's death. We note "reoccur" for "recur" (p. 10), and on p. 225 there is the word "doby," which at first looked like an American neologism of unknown meaning, but after consideration resolved itself into a mistake of the printer for "body."

[14] *Bier's Textbook of Hyperaemia.* By Professor Dr. A. Bier. Translated from the German edition by Dr. G. M. Blech. London: Rebman Ltd. 1909. (Demy 8vo, pp. 455. 12s. 6d.)

THE ORIGIN OF PIGMENT.

WE have received a monograph by Dr. E. MEIROWSKY, of Breslau, on the origin of the melanotic pigment of the skin and eye,[15] which contains an account of an interesting and apparently very accurate series of researches on the

[15] *Ueber den Ursprung des Melanotischen Pigments der Haut und des Auges.* By Dr. E. Meirowsky. Leipzig: Dr. W. Klinkhardt. 1908. (Roy. 8vo pp. 122, plates 8. M. 15.)

development of pigment after exposure of the skin to the Finsen light. Pieces of skin were excised and submitted to microscopical examination. Coloured plates are given showing melanoblasts—branching connective tissue cells loaded with pigments—creeping in between the deeper cell layers of the epidermis, the cells of the epidermis loaded with pigment, pigment granules in the intercellular lymph spaces, and pigment in process of formation from the nuclear substance of the cells. The author adduces strong proof of his contention that the pigment not only arises from the melanoblasts of the cutis, but is also formed *de novo* in the epidermic cells; that it arises from the chromatic substance of the nuclei; that nuclear growth and activity precedes the development of the pigment; that a substance is formed in the nuclei which stains red with pyronin, and that this substance escapes from the nuclear plasm into the cystoplasm and finally becomes melanin; finally that two chemical processes are concerned, one, an autolytic process resulting in the setting free of the tyrosin group from the protein complex, and the other, the action of a ferment, tyrosinase, which changes tyrosin into melanin. This ferment is found widely spread in both the plant and animal world. The author gives an excellent account of the history of his subject, and adds a full list of references to the literature.

NOTES ON BOOKS.

IN his *Radiant Light and Heat*[1] Dr. W. B. SNOW, of New York, has brought together some useful information regarding the practical methods of applying these agents and their value, principally in dermatology. He lays particular stress upon the effectiveness of combining two or more agents in physical therapeutics, and to this end he offsets the inhibitory action of somewhat massive doses of the Roentgen ray by means of the stimulating effects of radiant light or the static-brush discharge, thereby, he says, avoiding *x*-ray dermatitis. In a separate section he deals conservatively with the therapeutic possibilities of convective moist and dry heat in infectious inflammations and (when associated with other measures) in defective metabolism.

The twenty-fourth volume of the *Transactions of the American Climatological Association*[2] covers the proceedings of this body at its meeting in Boston in 1908, and is conspicuous for the number of papers devoted to a consideration of the administrative control of tuberculosis and its treatment by tuberculin in individuals. Another series of excellent papers deals with cardiac disease, one of them being a summary of a careful investigation into the question of whether the prevalence of diseases of the heart is increasing in the United States. The conclusion drawn is that the death-rate from cardiac disease is rising, in spite of the fact that the general rate shows a tendency to fall. The primary cause of this inconsistency is held to be the pressure at which all classes in the United States nowadays have to live, whether they inhabit great cities or rural districts, but the explanation does not seem very satisfactory.

[1] *The Therapeutics of Radiant Light and Heat and Convective Heat.* By William B. Snow, M.D. New York and London: Siegle, Hill and Co. 1909. (Roy. 8vo, pp. 119; 23 illustrations. 10s. 6d.)

[2] *Transactions of the American Climatological Association.* Vol. xxiv. Philadelphia. 1908.

MEDICINAL AND DIETETIC PREPARATIONS.

Caffeine-reduced Coffee.

IDIOSYNCRASIES with regard to coffee and tea are, as is well known, very common; there are people who, if they take coffee in the evening, cannot sleep well, others who suffer in a similar way after tea, and others who are equally susceptible to both beverages. These symptoms are no doubt due to caffeine or theine respectively. In other persons, again, coffee produces palpitation or other symptoms of cardiac discomfort, an effect from which tea appears to be more or less exempt. Our attention has recently been drawn to a coffee for which it is claimed that the greater part of the caffeine has been extracted. Examination showed that this coffee, which is called the "Life-belt" coffee, and is sold by a company of that name having offices at 71, Eastcheap, London, E.C., contains only about one-tenth or a little more of the amount of caffeine ordinarily present. It can, we believe, be obtained either in the roasted bean or ground, and the beverage made from it does not, so far as we are able to judge, differ in flavour from untreated coffee made in the same way. This coffee will no doubt commend itself to persons who enjoy the flavour of coffee but do not desire its stimulating effects, or fear to suffer from insomnia or cardiac disorder as a consequence of indulging in the beverage.

MEDICAL AND SURGICAL APPLIANCES.

A Radium Applicator.

MR. W. H. MARTINDALE, Ph.D., has devised at the request of a client a small radium applicator in the form of a square locket; it has a mica window which cuts off the alpha rays while allowing the others to pass. A square shape has been chosen, since it presents an advantage over a circle, as the surface to be treated when extensive can be planned out and treated at intervals, area by area, without the risk of covering the same part twice or leaving parts untreated. Radium bromide is spread in a thin film on the square surface, either pure or mixed with an inert salt to yield a definite activity in uranium units, so that the operator may know exactly what strength he is using on a given surface. The locket applicators are made with an area of 1, 2, or 3 sq. cm.; nine carat gold is employed, and the price is stated to be reasonable. The appliance can be obtained from Mr. W. Martindale, 10, New Cavendish Street, Portland Place, London, W.

DRUG TREATMENTS FOR INEBRIETY.

A SOMEWHAT frequent constituent of preparations for the treatment of inebriety is atropine, while other preparations contain one or more of the alkaloids belonging to the same group, usually known as the solanaceous alkaloids, from the fact that they are all derived from plants of the nat. ord. *Solanaceae*. These alkaloids possess strong resemblances in their chemical nature and in their pharmacological properties; the principal members of the group are:

Atropine, $C_{17}H_{23}NO_3$, obtained chiefly from *Atropa belladonna* and *Scopola carniolica*.

Hyoscyamine, $C_{17}H_{23}NO_3$, obtained chiefly from *Hyoscyamus niger* and *Scopola* species.

Hyoscine, or scopolamine, $C_{17}H_{21}NO_4$, obtained chiefly from *Scopola* species, *Hyoscyamus niger*, and *Datura alba*.

The two following were originally described as separate substances, but have more recently been shown to consist of mixtures:

Duboisine, obtained from *Duboisia myoporoides*, consists chiefly of hyoscyamine and hyoscine.

Daturine, from *Datura stramonium*, consists chiefly of hyoscyamine, with a variable proportion of atropine.

A certain preparation for inebriety is said to contain "stramonine"; as no alkaloid has been described and characterized under this name, it is probably only a variant of daturine, which, as has been said, consists of a natural mixture of hyoscyamine and atropine.

To the above may be added the artificial alkaloid homatropine ($C_{16}H_{21}NO_3$), which has not been found in a plant, but is prepared synthetically; in chemical constitution it is mandelyl-tropeine, atropine being tropyl-tropeine.

The differences in the action of the four principal solanaceous alkaloids are briefly as follows:

Atropine has a stimulant action on the central nervous system, especially on the motor area; it depresses and in large doses paralyses the nerve endings of secretory glands, plain muscle, and the heart.

Hyoscyamine is intermediate in its action between atropine and hyoscine; causes less stimulation of the central nervous system than atropine, and is a weaker sedative and hypnotic than hyoscine. It has the same action peripherally as atropine but is twice as powerful.

Hyoscine resembles atropine in its paralysing effect upon peripheral nerve endings, the action being quicker, more powerful, and less lasting. It does not possess the stimulating effect of atropine upon the brain; depression of the motor area is marked from the first.

Homatropine resembles atropine in its action but is less powerful.

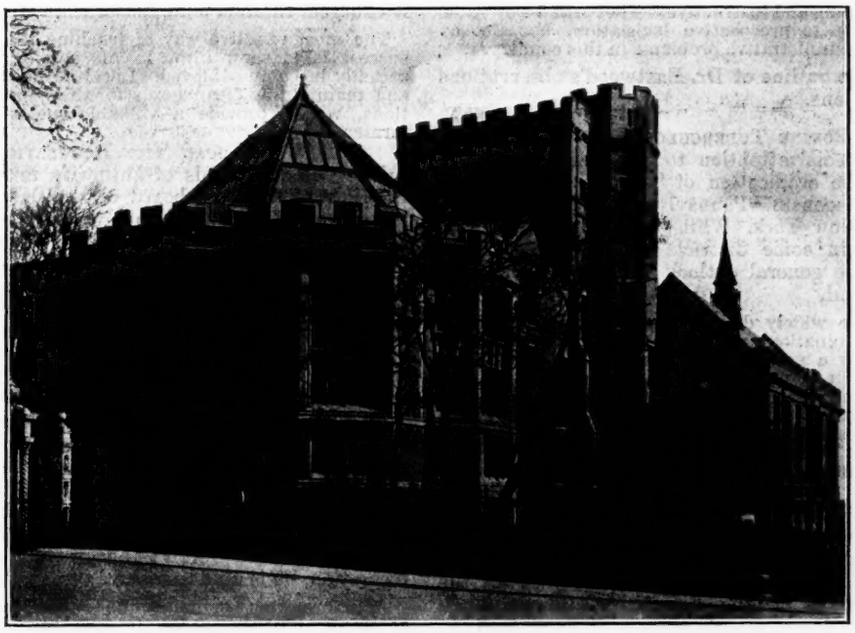
THE UNIVERSITY OF SHEFFIELD.

OPENING OF NEW LIBRARY.

THE Prince and Princess of Wales visited Sheffield on April 26th to open the University Library, the erection of which has been rendered possible through the gift of a sum of £10,000 for the purpose by Mr. Edgar Allen.

The university buildings occupy the slope of a hill on the verge of Weston Park, and the library has been erected on the highest point of the site, so that in approaching the university from the higher ground it is the most conspicuous building, and adds a very dignified note to the general effect. It is octagonal in form, of red brick with stone mouldings, in an ornamented Tudor style. There is a central hall, in the middle of which is a carved oak octagonal counter for the accommodation of the librarians, who from this central point will command a view of the entire building. Around the hall are eight richly moulded stone arches, leading into reading rooms with bay windows, fitted with tables and bookshelves, while above is a gallery with a similar series of rooms. Accommodation is provided for a hundred readers.

Two considerations have influenced Mr. E. M. Gibbs, F.R.I.B.A., the architect of the university, in designing the library on this plan; one is that by making this series of rooms the classification of books will be facilitated, and the other that it will be easier to obtain quiet. The rooms have shelving for 25,648 volumes, and beneath the central hall is a lofty stock-room with a capacity for 97,696 additional volumes, making a total of 123,344 volumes. At present the library contains about 22,000 volumes. Mr. G. C. Moore Smith, who was honorary librarian from 1896 to 1907, prepared for the occasion an interesting description of the library, in the course of which he predicts that if the university continues to receive benefactions at the rate which has so far prevailed, the library will in twenty or thirty years be famous in the North of England, and one of the chief glories of Sheffield. It is pleasant to note that those who are forming the library have not limited their ambitions to purely utilitarian objects. The committee puts forward a statement containing a list of the English printed or English written books down to the year 1640, and of foreign printed books down to 1600 which are already in the library; the committee adds with pardonable pride that whereas in 1897 the library possessed 6 of the former and 37 of the latter class, it now owns 191 of the former and 212 of the latter; of this total of 403 early books only 114 have been purchased, and it is to be hoped that citizens of Sheffield and graduates of the university who may not be able to rival Mr. Edgar Allen's splendid generosity may yet, acting in the same spirit, enrich the library by gifts of volumes which it still requires.



Photograph by] THE NEW LIBRARY [To cal Pres

The Prince and Princess of Wales, who arrived at Sheffield a little before 2, drove to the Town Hall, where they were received by the Lord Mayor, and presented with an address from the city, in which reference was made to the earlier visit of the Prince in 1895 to open a new wing of the Royal Hospital, to the visit of Queen Victoria in 1897 to open the Town Hall, and to the visit of King Edward VII and Queen Alexandra to open the buildings of the university. The address went on to express the belief that the library would be of the greatest value to an institution of which the citizens of Sheffield are justly proud, for the university is already doing an immense amount of good in the higher education of the people of that great industrial centre.

The Prince, in his reply, expressed the special satisfaction with which he and the Princess had travelled to Sheffield to take part in the opening of the new library of the university, and the pleasure with which he learnt that the good results achieved by the university in the higher education of the people were thoroughly recognized by the citizens.

After lunching at the Town Hall the Prince and Princess proceeded to the university, where they were received by the Chancellor, the Duke of Norfolk, E.M., K.G., by the Pro-Chancellor, Alderman Franklin, and the Vice-Chancellor, Sir Charles Eliot; a procession was formed, and on reaching the Firth Hall the Chancellor made a number of presentations to the Prince and Princess. The Vice-Chancellor then read an address, in which the officers of the university expressed the earnest hope and ambition that the Edgar Allen Library might worthily fulfil the purposes for which it had been erected, that all who taught and all who were taught in the university might find within its walls the means to acquire knowledge and the inspiration properly to use it.

The Prince of Wales, in the course of his reply, said that the great development of the university movement was a remarkable feature in the march of education during the latter part of the nineteenth century. The important industrial centres now recognized that there were problems to be solved differing widely from those dealt with in the more ancient universities. Sheffield had been quick to see the necessity of adapting herself to the industrial needs of the people, and to realize that scientific and technical knowledge was indispensable to success in the strenuous commercial struggle amongst the nations of the West. Thanks to the liberality of the late Mr. Mark Firth, the college which bore his name was founded in 1879, and incorporated twenty-six years later with those other institutions which constituted the University of Sheffield, including among them schools of engineering and metallurgy which were famous throughout the land. A more important essential to a modern university than the addition about to be inaugurated, containing accommodation for 120,000 volumes, could not be imagined. He hoped that the shelves of the Edgar Allen Library would be stored with all standard and many rare works, which otherwise were beyond the reach of the individual student, thus furnishing him with an intellectual equipment which would help him to compete and triumph in the professional career to which he was called.

The Chancellor then conferred the honorary degree of Doctor of Letters on the Prince of Wales and Mr. Edgar Allen, and afterwards delivered a short address in which he thanked their Royal Highnesses for the interest they

had displayed in the university, and announced that Mr. Edgar Allen had presented £1,100 to a guild which has the charge of watching over the poor of Sheffield, had undertaken to give £5,000 to the Royal Infirmary on the condition that a ward or a wing in the institution should be called after the Prince, and £5,000 to the Royal Hospital on condition that a ward or wing should be called after the Princess.

Their Royal Highnesses then proceeded to the library, and Mr. Allen presented to the Prince a key, with which he opened the door. On entering the library the Bishop of Sheffield offered a brief dedicatory prayer, and the Prince declared the library open. Subsequently the royal party visited the physics laboratory under the guidance of Professor Hicks.

THE MILK PROBLEM IN AMERICA.

DR. EASTWOOD'S report to the Local Government Board on American methods of regulating and improving the milk supply[1] is introduced by a covering letter from Dr. Newsholme, Medical Officer to the Board, who, after describing the scope of the investigations with which Dr. Eastwood was entrusted, states that

The information collected by him and his personal comments thereon are interesting and instructive. They will be of value not only in relation to prospective legislation, but also as throwing light on administrative problems in this country.

The following is an outline of Dr. Eastwood's observations and recommendations.

BOVINE TUBERCULOSIS.

He has paid special attention to the methods adopted with a view to the eradication of bovine tuberculosis by the States of Wisconsin, Pennsylvania, Massachusetts, Minnesota, and New York. Whilst recognizing that the results obtained in some districts are encouraging, he considers that the general outlook for the country as a whole is not hopeful.

The disease is so widely disseminated, and the economic obstacles to its elimination are so excessively great, that it is impossible, even by a generous interpretation of the efforts which are being made, to put together tangible evidence of substantial success on the lines which have hitherto been followed. Tuberculosis progresses so insidiously, persists so long before manifesting its presence by physical signs, and has taken so firm a hold on the stock of the country, that there is not the least hope of being able to stamp it out by the application of any simple and drastic measures which have been effective in eliminating other infectious diseases.

Applying to our own country the lesson to be learnt from American experience, he considers that it is useless to attempt the formulation of any general plan for the complete eradication of the disease within a limited period. Ambitiously comprehensive schemes end in failure and the wastage of public money. The problem must be attacked piecemeal, and the first step to take is to secure the slaughter of cows with advanced or generalized tuberculosis or with tuberculosis of the udder. This raises the question, Ought compensation to be paid for cows coming under this description?

It is impossible to study American experience of compensation without forming a definite opinion on that point. When a herd contains animals broken down with tuberculosis, it practically always contains also other animals in a less advanced but progressive stage of the disease. The mere elimination of the former animals does not produce a clean herd; the other infected animals gradually develop the condition of those already slaughtered, and continue by their faecal and other discharges to pass on the infection to new arrivals. So the process goes on indefinitely, and the payment of compensation for broken-down beasts is a positive encouragement for its continuation. Public money expended for this purpose is worse than wasted; by rewarding the farmer who is unwilling or unable to adopt effective measures of control, it actually aids in the continued propagation of the disease, and so contributes to a further diminution of the food-producing value of the live stock in the community.

The next steps towards the eradication of tuberculosis are: (1) By means of the tuberculin test, applied to entire herds, to discover the total extent of infection; (2) to separate permanently the healthy from the reacting animals; and (3) to confirm the first diagnosis of freedom from tuberculosis by a repetition of the test some months later. These measures are essential if freedom from the disease is to be secured. But tuberculin testing requires skill and costs money, and, as the average farmer cannot afford to pay for it out of his own pocket, the expenditure should come out of the public funds, with the exception of a small fee to be exacted from the farmer as evidence that he is earnestly desirous of obtaining the knowledge which will help him to eliminate tuberculosis from his cattle. The farmer will then have the opportunity of treating his cattle on the Bang system; and, in districts where there is substantial evidence that this system is appreciated, further assistance might be given to him. For example, in herds which become nearly, but not quite, free from tuberculosis, the community might take over the few remaining animals which react, on terms advantageous to the farmer; but this could only be done in districts where the value of the tuberculin test has become appreciated—that is, where farmers recognize that cows which have passed the test are worth more money in the open market than untested or reacting cows. Another important way of helping the farmer is to educate him by providing him with accurate information as to the financial loss which bovine tuberculosis involves, the economic advantages of getting a clean herd, and practical methods of obtaining one. And of all educative influences, it is urged, there is none better than the force of example.

The most effective way of teaching the farmer the way to success is to show him, in his own district, that success actually is being achieved. Local authorities, by establishing and maintaining clean herds for the supply of public institutions, would provide a valuable means of educating the farmer.

LOCAL MILK REGULATIONS.

The essential basis of authority in America resides in the right of the local board of health, by the exercise of its own unaided powers, to prohibit the sale of unwholesome milk. This right has been sustained in the law courts, and is supported by public opinion. But it must be understood that the American local authority does not usually enforce, or even attempt to enforce, every requirement which happens to be on its official code of rules and regulations. These codes are often drawn up on idealistic principles, setting forth what the health officer ought to endeavour to enforce; he accomplishes what he can, but his achievements usually fall short of the ideal. Aggressive regulations, demanding more than the producer can reasonably perform, do more harm than good; they are always evaded, cause much irritation, and satisfy nobody. But the medical officer usually learns by experience what rules he can enforce and what he had better allow to become a dead letter; and, using his powers with discretion, he is able to make appreciable progress.

Actual reforms are mainly due to the acceptance of reasonable recommendations offered by the medical officer, and are attributable to the recognition rather than to the exercise of this officer's right of direct intervention.

Theoretically, the medical officer has the right to withhold or revoke a "permit," that is, a licence to sell milk, for any and every breach of the municipal regulations; but in practice he exercises this right very sparingly, and only for very substantial cause, and therefore the system works well, and inflicts no hardship on the honest dealer. The advantage of the permit system is that it provides a more prompt and effective way for checking flagrant abuses than the clumsy method of prosecuting in the magistrate's court, and seeking the imposition of a fine. Closely connected with the permit system is the right of imposing conditions which must be fulfilled before milk can be permitted to enter a city. Here again, when the conditions imposed are reasonable, the exercise of this right is proving a very valuable aid in the endeavour to secure a wholesome milk supply. In short, the lesson which other countries might profitably learn from the measure of success which has been attained in America is that "it would be an advantage to entrust to the local health authorities reasonable and legally-defined powers of direct control over the production and sale of milk."

SPECIAL ASPECTS OF THE MILK PROBLEM.

The author's investigations into the production of pasteurized milk led him to the following conclusions:

Commercial pasteurization is firmly established, and cannot be abolished; but it seems both possible and desirable to institute a system of inspection which shall provide a guarantee

[1] Reports to the Local Government on Public Health and Medical Matters. New series. No. 1. London: Published by Wyman and Sons. 1909. To be obtained through any bookseller. 6d.

that the work is done efficiently, with regard to the interests of the consumer and in accordance with the standard of skill, care, and cleanliness already observed by the better class of firms. Whilst official encouragement or enforcement of pasteurization might be objectionable, it would appear useful and reasonable to insist that pasteurized milk shall be sold as such, in order to enable the consumer to choose for himself between the pasteurized and the raw article.

In many American cities the attempt has been made to establish a "bacterial standard" for milk—that is, a requirement that milk exposed for sale shall not contain more than a specified number of bacteria per cubic centimetre. Attempts to enforce compliance with these standards have generally failed, but nevertheless the interest which has been aroused in the bacterial contents of milk has served a useful purpose, and it is now recognized both by health inspectors and by many business firms that simple bacteriological tests are of practical utility as indications of the quality of a milk supply.

Routine bacteriological examination of samples for the guidance of the milk inspection service are valuable, and should be adopted. They afford the most reliable, the cheapest, and often the quickest means of discovering when milk has been improperly handled. Upon the pathogenic effects of many of the bacteria commonly present in milk further research is needed.

On the cooling of milk to a temperature not exceeding 50° or 55° F., much stress is laid in some American cities, particularly New York, but Dr. Eastwood does not consider that it would be possible to compel English milk sellers to comply with this requirement.

Attempts are being made in some American localities to grade milk according to its quality. These endeavours lead Dr. Eastwood to suggest that a useful purpose would be served in this country if some official restriction were placed on the fancy designations of milk at present in vogue, such as "pure," "nursery," "medically inspected," "from tuberculin-tested cows." He proposes that a regulation should be established requiring all milk to be sold under one of three designations—namely, "raw," "pasteurized," or "officially certified."

A brief description is given of the American "medical milk commissions," which aim at the production of thoroughly wholesome milk. The writer considers that these "commissions" are making slow but appreciable progress, and that they are worthy of imitation. In commenting on the limited degree of success which some of them have attained, he remarks that sufficient attention has not yet been paid to the employment of common methods of commercial enterprise in "pushing" this commodity. And, he adds, "municipal enterprise in the production of certified milk for the purpose of improving the physique, and therefore increasing the wage-earning capacity of the poorest classes, is also worth considering."

In many American localities the inspector fills up a report on each place he visits in the form of a "score card," assigning so many marks out of a given maximum for each detail on which it is his duty to report. Commenting on the practical working of this system, Dr. Eastwood says: "Given competent, honest, and tactful inspectors, the score card system works well, and is advantageous alike to the health authority, the producer, and the consumer. Its most important service is that it provides a steadily applied stimulus to voluntary improvement, where the conditions fall far short of the ideal but do not lend themselves to correction by coercive measures."

Discussing problems of milk transit and comparing American with English methods, he writes: "The fact that in the American trade milk is hauled in dust-proof receptacles demonstrates the absurdity of the notion that ventilation holes are necessary. On arrival at its destination by rail, milk should be in sealed cans bearing the name of the farm where it was produced. Promiscuous mixing of milk intended for sale without pasteurization is undesirable. If some mixing be necessary for the purpose of averaging the quality of milk sold as raw milk, the dealer should be saddled with the responsibility of labelling the mixture with the names of the two or more sources from which it was obtained. When milk is sold in bottles, official supervision is desirable to ensure the bacteriological cleanliness of the bottles and bottling apparatus."

BRITISH MEDICAL BENEVOLENT FUND.

At the April meeting of the Committee twenty-three cases were considered, and grants amounting to £204 5s. made to twenty of the applicants, two cases being passed over as unsuitable for help and one postponed for further inquiries. Appended is an abstract of the cases relieved:

1. M.R.C.S., L.R.C.P., aged 31. Has been incapacitated for some time by ill health and exhausted all his resources; is now better, and able to undertake a little light work, but requires immediate help to purchase a few necessary articles of clothing, etc. Voted £2 5s.

2. Widow, aged 38, of M.B., Ch.B.Glasg. Lost her husband soon after marriage, and is at present dependent on relations who can ill afford to help. Proposes to train as a maternity nurse, and friends promise to pay part of the expense. Voted £5 conditionally upon the balance of the money being found.

3. Widow, aged 60, of M.R.C.S. No income; endeavours to support herself by letting lodgings; children only able to give very slight help. Relieved three times, £34. Voted £18.

4. Widow, aged 61, of M.R.C.S. Quite unprovided for at recent death of husband, whose means were exhausted by a two years' illness. No children. Voted £12.

5. Daughter, aged 61, of late M.R.C.S. No means; has been given a home for some years past in return for services, but fears she will soon have to give it up. Voted £5.

6. Daughter, aged 64, of late M.R.C.S. No income; used to act as housekeeper to a brother, and after his death qualified as a maternity nurse, but now obtains so few cases that she is obliged to apply for help. Voted £12.

7. Widow, aged 56, of L.R.C.P., L.R.C.S.Edin. No income, and since husband's death twenty years ago has supported herself as children's nurse, etc., but has recently been incapacitated by a serious illness which has exhausted her small savings. Voted £12.

8. M.R.C.S., aged 70. Until a few months ago was in practice but has recently undergone an operation for gangrene, and is now quite incapacitated. Slight help from children. Voted £18.

9. Daughter, aged 59, of late M.R.C.S. Allowed 5s. a week by friends and earns about the same amount by needlework. Relieved twice, £30. Voted £12.

10. Daughter, aged 59, of late M.R.C.S. Is given a home in return for services, but requires help for dress and other unavoidable expenses. Health very indifferent. Relieved seven times, £108. Voted £12.

11. Daughter, aged 48, of late M.R.C.S. Is a confirmed epileptic and consequently unable to follow any occupation. Dependent on a brother-in-law, who can ill afford to help, and receives £10 a year from the National Hospital for the Paralysed and Epileptic. Relieved twice, £22. Voted £12.

12. Daughter, aged 43, of late M.R.C.S. For many years past has been obliged to nurse her recently deceased mother, an annuitant of this Fund. Hopes now to support herself by letting rooms, but requires a little help meanwhile. Relieved once, £5. Voted £5.

13. Daughter, aged 66, of late M.R.C.S. Has supported herself by teaching for forty-three years, but is now unable to do so. Health indifferent and sight failing; no means; earns a few shillings occasionally by knitting. Relieved once, £12. Voted £12.

14. Widow, aged 62, of L.F.P.S.Glasg. Only income £10 a year from a charity. No children. Lets rooms, but has great difficulty in obtaining lodgers, and is in very bad health. Relieved six times, £60. Voted £10.

15. Daughter, aged 60, of late M.D.Aberd. Has given music lessons for nearly forty years, but finds increasing difficulty in getting pupils, and is in a very feeble state of health. Relieved twice, £20. Voted £10.

16. Widow, aged 49, of L.R.C.P., L.R.C.S.Edin. No income. Dependent on two sailor sons, both at present out of work. Relieved five times, £51. Voted £12.

17. Widow, aged 61, of M.R.C.S.Eng. No income. Slight help from friends; a son sends a few shillings occasionally. Is quite incapacitated by permanent ill health. Relieved three times, £36. Voted £12.

18. Daughter, aged 53, of late M.R.C.S. Is unable to earn a living, and dependent on three sisters who have to support themselves. Voted £5.

19. Daughter, aged 25, of late M.R.C.S. Health quite broke down after nursing her mother through a long illness, ending in death, and for some months past has been an inmate of different institutions. Relieved once, £6. Voted £6.

20. Widow, aged 66, of L.R.C.P.Lond. No income. Unprovided for at husband's death, about twenty years ago, and has supported herself by a boarding house, but now finds it impossible to make both ends meet. Relieved three times, £36. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

LITERARY NOTES.

MESSRS. WITHERBY AND CO. have in preparation a work entitled *A History of the Birds of Kent*, by Mr. Norman F. Ticehurst, M.A., M.B., F.R.C.S.Eng., who has for many years been well known among ornithologists as a close observer of the avifauna of the county. The work will be published by subscription, and only a limited edition will be issued.

In the *Periodical* for April we find some extracts from Wilson's *Arte of Rhetorique* (1560), which has just been published by the Oxford University Press, with an introduction and notes by Mr. G. H. Maer. Two of these concern our profession, and may interest our readers. They are as follows:

When an vnlearned Phisition (as England lacketh none such) had come to *Pausanias* a noble Gentleman, and asked him if he were not troubled much with sicknesse. No sir (quoth he) I am not troubled at all, I thanke GOD, because I vse not thy counsaile. Why doe ye accuse me (quoth the Phisition) that neuer tried me? Marie (quoth *Pausanias*) if I had once tried thee, I should neuer haue accused thee, for then had I beene dead, and in my graue many daies agone.

An English Phisition ryding by the way: and seeing a great companie of men gathered together, sent his man to know what the matter was, whervpon his man vnderstanding that one there was appointed to suffer for killing a man: came riding backe in al post haste, and cried to his maister, long before he came at him: get you hence sir, get you hence for Gods loue. What meanest thou (quoth his maister). Mary (quoth the feruaunt) yonder man shall dye for killing of one man, and you I dare saie, haue killed a hundred men in your daies: get you hence therefore for Gods loue if you loue your self. . . .

It would be easy to give modern equivalents of these hoary-headed jests. The mind of man seems to be incapable of conceiving anything new in the way of jibes against doctors. They but change their dress with the time; the essence of the jest is ever the same.

To the *Caledonian Medical Journal* for April Colonel Kenneth Macleod contributes some interesting reminiscences of the Edinburgh Medical School as it was half a century ago. Speaking of John Goodsir, he says he has never been so impressed by the appearance of any man as by the person, mien, and manner of the famous professor of anatomy when he delivered his introductory lecture. Tall, spare, and bent, robed and clothed in black, with strong features, grave, thoughtful, earnest expression, eyes full of intelligence, which warmed and flamed as he proceeded, long arms, large shapely hands, slow gestures, and deliberate utterance, he presented the aspect of a scientific devotee. In his fourth year Colonel Macleod acted as prosector, and executed on a special subject a dissection of the pneumogastric and sympathetic nervous systems from end to end, with their distribution and intercommunications, which he believes is still preserved in the anatomical museum and used for demonstrations. While engaged on this work he was one day introduced to Goodsir by Professor Allen Thomson, of Glasgow, who was in search of a senior demonstrator. Colonel Macleod's youth and inexperience in teaching were against him, and Dr. John Cleland was chosen for the post. Colonel Macleod's anatomical work, however, stood in good stead when, many years afterwards, he was appointed Professor of Anatomy in the Calcutta Medical College. Robert Christison he describes as a strikingly handsome man, with a singularly strong, intellectual face. Colonel Macleod had the good fortune to serve under Syme as a dresser. He describes the great surgeon as follows:

A small, neat man, with a compact figure, shapely hands and feet, a plain but clever face, and a large head, he was dressed in a black dress-coat and tweed trousers, and wore a high collar with a large check stock. He drove in a big coach drawn by a pair of fine horses. He was a man of few words, but these were very much to the point. His voice was weak, feeble, and thick. When lecturing he sat on a chair in the well of the operating theatre, and had another placed beside him on which the patient, if able to walk, was seated. He generally saw him for the first time, and, with a few pertinent questions and a rapid examination, he soon made his diagnosis, and explained the nature and treatment of the case in a few pithy sentences. When visiting the wards he made very few remarks. He was seen at his best when operating. He was collected, neat, quick, and resourceful. He knew what had to be done, and did it. He never changed his coat for an operation, but sometimes turned up his cuffs and sometimes his coat collar. His operations for traumatic aneurysm, by opening the sac and tying the artery above and below, were magnificent. He was a most kind, hospitable man, and devoted to botany and horticulture.

He concludes with a sketch of university life as it was in his day. The University Union was not in existence. The university was, in fact, a sort of big day school. There were, however, several literary, musical, and athletic societies and clubs which brought students pleasantly together. The Royal Medical and Hunterian Societies gave opportunities of mental improvement and agreeable association. The dissecting rooms and hospital were a common meeting ground, and good fellowship prevailed in all the classes, and mutual help and encouragement were cheerfully given wherever students assembled together. Medical students were a hard-working, well-behaved lot, and very few of them led an idle or fast life. Those best acquainted met in each others' rooms—generally of a Sunday evening—for a quiet chat over the "cup that cheers," and sometimes held a discussion or examination on the subjects of study.

To the *Bulletin of the Johns Hopkins Hospital* for January Dr. John E. Douley contributes an account of John James Wepfer, a physician of the period of the Renascence, who specially studied apoplexy. Wepfer was born at Schaffhausen in 1620, and after studying at Basel and Strassburg, and afterwards spending two years in the universities of Italy, he returned to his native land and took his Doctor's degree at Basel in 1647. In the same year he was appointed physician to the city, and was granted the then unusual privilege of making *post-mortem* examinations. In 1675 he was appointed physician to the Duke of Wirtemberg, and shortly afterwards to Charles the Elector Palatine. He served with armies in the field at different times; when over 70 years of age he worked so hard in combating an epidemic fever which was ravaging the army of the Emperor Leopold that he died of the effects of overwork at the beginning of 1695. In accordance with his expressed wish an autopsy was made, and it was found that there was calcification of the aorta, a condition of which he had himself conjectured the existence. His chief work is a treatise on apoplexy (*Observationes Anatomicae ex Cadaveribus eorum quos sustulit apoplexia*) the first edition of which was published at Schaffhausen in 1658. It was reprinted at the same place in 1675 and at Amsterdam in 1681, 1710, and 1724. Wepfer gives the history of four cases of apoplexy with reports of the *post-mortem* examinations. He describes his method of opening the skull and removing the brain with its vessels. He gives a clear description of the vessels of the dura mater, of the vertebral and internal carotid arteries with their branches and their terminal ramifications coursing in the pia mater and entering the substance of the brain. He describes the arrangement of arteries at the base which is now known as the "circle of Willis." There is no allusion, however, to Wepfer's book in Willis's *Cerebri Anatome* which was published in 1664. Wepfer discusses the venous sinuses and expresses the opinion that the arteries of the dura mater as well as the internal carotids and vertebrals transmit their blood ultimately to the longitudinal sinuses whence it passes by way of the jugular veins back to the heart. His view as to apoplexy was that it occurred either because the afflux of blood was denied to the brain or because the efflux of animal spirits from the cerebrum and cerebellum was prevented, or, in certain cases, because both these causes acted together. Anything which prevents the influx of blood to the brain through the carotids or the vertebral arteries and its return through the jugular veins was, according to Wepfer, capable of producing apoplexy; and this influx to the brain might be hindered by obstruction of the internal carotid and vertebral arteries by compression of these arteries, or finally by blood extravasated within the brain. He observed that blood extravasated within the cranium would cause apoplexy if it was copious in amount and lay in the deeper parts, particularly about the base. Dr. Douley thinks that Wepfer probably gives the first systematic account of apoplexy in which the condition is explained in accordance with the new theory of the circulation of the blood. Wepfer was the author of researches on the effects of hemlock and other poisons and of several other works. He was a hard worker, seldom going to bed before 11 and rising at 4. He devoted the first part of the day to prayer and to the reading of the Scriptures, both in Greek and in Latin. He was never

idle throughout the day; even at meals he was busy with a book or with his correspondence. So great was his eagerness for knowledge that when the opportunity of investigating human bodies was lacking he studied the lower animals, his observations on which he frequently communicated to his professional brethren.

Medical News.

A SPECIAL meeting of the Dermatological Section of the Royal Society of Medicine will be held at 20, Hanover Square, on May 20th, at 5 p.m., when Dr. Louis Wickham, of the Radium Institute, Paris, will give a lecture-demonstration on the therapeutics of radium.

THE annual general meeting of the Medical Defence Union, Limited, will be held at the Medical Library, University College, Bristol, on Thursday, May 27th, at 4.30 p.m., when the annual report will be presented and the usual statutory business carried out.

WE are asked by Captain Montgomery Smith, the Honorary Secretary, to state that the annual meeting of the Volunteer Medical Association will be held at 20, Hanover Square, on Wednesday, May 5th, at 4 p.m., for general business and the election of officers.

A SPECIAL meeting of the Irish Medical Schools' and Graduates' Association will be held at Harrogate on Saturday, May 22nd. Arrangements have been made with the Majestic Hotel to allow of members remaining until Monday to visit places of interest in the neighbourhood. Full particulars may be obtained from the Honorary Secretary, 30, Myddelton Square, E.C.

THE summer post-graduate session at the Hospital for Sick Children, Great Ormond Street, W.C., will commence on Thursday next, May 6th, when Dr. Batten will give a demonstration on cases of cerebral tumour in children. On May 13th Mr. Corner will deal with selected surgical cases. The lectures are at 4 p.m. on each Thursday, and are free to all qualified medical practitioners.

DR. LEONARD HILL, F.R.S., Lecturer on Physiology in the London Hospital Medical School, is one of the wise hard workers who rides a hobby, and to such good purpose that a collection of his paintings in oil and water colour form an interesting little one-man show which will be open until May 11th at the Corner Gallery, so called because it is in the house at the corner of Old Bond Street and Piccadilly. Dr. Hill belongs to the impressionist school, and the most striking quality of his work is an appreciation of colour values well shown in what is probably the best piece in the collection, a black cock retiring vanquished from combat. There are several other brilliant animal paintings and a number of near landscapes, most of which show a love of sunlight, particularly a finished sketch of a woodland garden with daffodils. Altogether the show leaves the impression that Dr. Hill might have made another career for himself had he so chosen.

THE tenth meeting of the Departmental Committee appointed by the Lord President of the Council to consider the working of the Midwives Act was held at the Privy Council Office on April 28th, Mr. Almeric W. FitzRoy, the Clerk of the Council, presiding. The following witnesses attended and gave evidence:—Miss K. Stephenson, Honorary Secretary of the Wiltshire County Nursing Association; Miss Lilian Trendell, certified midwife, lately Inspector of Midwives for the County Council, and County Superintendent of the County Nursing Association in Herefordshire; Mrs. Elizabeth Miles, certified midwife, Hertford; Miss Alice Gregory, certified midwife, Honorary Secretary and District Superintendent of the Home for Mothers and Babies and Training School for District Midwives, Woolwich, Vice-Chairman of the London County Council Midwives Act Committee; Mrs. Messenger, certified midwife, Matron of the St. Margaret's Nursing Home, 30, Surrey Square, S.E.

THE first report has recently been received of an undertaking of some interest—namely, an institution for the training of children who are not only blind but mentally too defective to be able to profit by the tuition afforded in ordinary schools for the blind. It was established by Miss Meiklejon a few years ago on the suggestion of Dr. Campbell, of the Royal Normal College, Upper Norwood, and last year was reorganized so as to be recognizable by the Board of Education as a registered special school. Its object is to endeavour to improve the mental condition of the children sufficiently to enable them to pass on to ordinary schools for the blind, and, failing this, to teach them to become decent and possibly useful members of an ordinary household. Children of both sexes are admitted, and the school is permitted to receive not only children sent by public education authorities but also private cases. There are vacancies now for blind and defective girls belonging to middle-class families, but the managers of the school are specially anxious to have placed in their charge quite young children, as they offer the best chance of success. Children from any part of the country can be received, as, though the title of the school is the Hastings and St. Leonards Special School for the Blind, the connexion is merely one of locality. As far as we are aware, this school stands by itself among such institutions, for, though the London County Council makes special provision for defective blind boys, there is no school which caters specially for blind and defective girls. By the regulations of the Board of Education its accounts have to be audited and published in a prescribed form, and the children must be instructed by a qualified teacher and housed in accordance with the regulations of the Board of Education, to whose inspection it is at all times open. These are points of interest, for it can never be made entirely self-supporting, and, in default of assistance from charitable sources, it may prove impossible to keep it open for long. It has its habitation at 48, Kenilworth Road, St. Leonards-on-Sea.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on April 14th, Dr. Blandford, President, in the chair. Eleven directors were present. It was reported that since the last meeting three members of the court had died—Mr. T. Laurence Read, Vice-President, and Dr. Eastes and Dr. Chas. Baker, directors. Votes of condolence with the families of these gentlemen were passed. Two medical men were duly elected members of the society. One of the annuitants, an orphan, had died. Her mother, up to the time of her death, had also been in receipt of grants. The father had paid in subscriptions £14 14s., and his widow and orphan had received from the funds of the society £960. Five letters asking for relief had been received from widows of medical men, but had to be refused, as their husbands were not members of the society. Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. The subscription is two guineas per annum, and relief is only granted to the widows and orphans of deceased members. Full particulars may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W. The invested funds of the society now amount to over £100,000. Thursday, May 20th, was fixed for the annual general meeting, due notice of which will be posted to the members on May 1st.

THE second International Congress on Industrial Accidents will be held at Rome from May 23rd to 27th, under the patronage of the Italian Government. Its programme of work was indicated in the BRITISH MEDICAL JOURNAL of March 20th, p. 736. For the benefit of any readers who may wish to take part in the proceedings, it may be repeated here. The subjects to be dealt with are: (1) The organization of a medical and surgical service for the treatment and observation of the consequences of industrial accidents. (2) Forensic medicine in relation to industrial accidents, and the principles which should guide doctors who have to give expert evidence on the subject. (3) The diagnosis and prognosis of neuroses caused by industrial accidents. (4) The estimation of working capacity before and after the accident; this includes: (*a*) Methods of examination for that purpose; (*b*) the importance of the state of health before the accident (predisposition, previous illnesses, etc.); (*c*) anthropological and sociological factors (race, age, sex, criminality, etc.); (*d*) the influence of phases in the legal procedure, inquiries by magistrates, medical examinations, etc.). (5) The influence of the mode of compensation on the development of post-traumatic nervous affections. (6) Statistical observations from the medical point of view as to the consequences of the application of the compensation law. (7) Functional adaptation of injured limbs. Communications relative to the congress should be addressed to the general secretary, Via Borgognona 38, Rome; the subscription (Fr.20) should be sent to the treasurer, Professor A. Ascarelli, at the same address. Reports introductory to discussions should not exceed sixteen and papers should not exceed eight printed pages in length. The honorary presidents of the executive committee are Professor Baccelli, Deputy to the Italian Parliament, and Professor Durante, Senator of the Kingdom. A committee formed for the purpose is arranging a programme of festivities and excursions. Ladies belonging to the families of congressists are admitted to membership at a subscription of Fr.10.

British Medical Journal.

SATURDAY, MAY 1st, 1909.

SPIRITUAL HEALING.

Whatever else may be said of him, Mr. W. T. Stead has a keen eye for the sensation of the hour. Therefore it was inevitable that he should give us his views on faith healing. Christian Scientists, he says (in the *Review of Reviews*, February and March), Psychotherapeutists, Magnetic Healers, and Spirit Healers have discussed with him how they do their mighty deeds. That they do them, he adds, no one can doubt; and has not Dr. Schofield assured us that faith-healing is a reality? Impressed by this convincing testimony Mr. Stead has looked into the matter, and passes various types of "healer" in review.

First we have the late Father John of Cronstadt who, if his devotees are to be believed, has a long list of miracles to his credit. That he had the indefinable gift of exerting spiritual influence seems to be unquestionable, and no one who knows how such influence can act upon the body in certain conditions will be disposed to deny that he may have wrought cures of nervous disorders in some cases. But he was under no delusion as to the limitation of his healing power, and he was so far from taking up the attitude of most "healers" that he declared that "those "commit murder who will not have a doctor to attend "them, or another person who is ill and requires the "doctor's help." He attributed whatever he did in the way of healing to prayer, a belief in which as a curative agent has been held and acted upon by the Church from the time of its institution. Father John was in fact a saint of the type of those who flourished in the "ages of faith," when whatever ill could not be traced to the action of evil spirits was regarded as a punishment or trial inflicted by God.

Next in Mr. Stead's collection of "healers" comes Mr. F. L. Rawson, of London, a consulting electrical engineer, who finds the key to the mystery of disease and its cure in electricity. Even prayer, if we understand him, is a form of electrical action. He believes that Mrs. Eddy has discovered the method by which Christ wrought His miracles and that Christian Scientists heal sin and sickness in the same way. But he explains her metaphysics in terms of natural science. The ether, he says, consists of lines of force at right angles to each other. At some of the places where these lines of force or high-tension electrical currents cross, the electrical tension rolls them up into a sort of knot. This is the electron, now recognized as the smallest particle of matter, and matter is simply a massing together of these electrons, or, in Christian Science language, it is a manifestation of thought; the lines of force being simply the natural science name for thoughts. By the action of the human mind, by strong, determined thinking or willpower, this electrical tension can be released and the matter then disappears, but the thoughts that caused the trouble are still there, and roll up again in some other form of trouble. When a person prays in the right way the action of God causes these lines of force and the electrons as well to be short-circuited, as in the cases of instantaneous healing of cancer and tumour. Mrs. Eddy, says Mr. Rawson, describes the whole action and interaction of the ether in metaphysical terms; for instance, she speaks of error destroying itself, which means the short-circuiting action of the two ends of adjacent particles on each other, one end being positive and the other end negative. She calls these thought germs. The true natural science explanation of the action of thought and matter is merely Mrs. Eddy's metaphysical explanation expressed in terms used in natural science, and for the first time in the world's history we get religion, science, and metaphysics absolutely agreeing; only they have not yet discovered that this is so owing to their using different terms, and to one side being too busy and the other not loving enough. This lucid explanation should be sufficient to convince any one that Mr. Rawson can do wonders with words. Of the marvels of healing which he claims to have performed, Mr. Stead can scarcely trust himself to speak. He confesses, indeed, that he has not had the opportunity of collecting and sifting the evidence of those who have benefited by Mr. Rawson's treatment; this, we may hint, would be somewhat hard to do, as his power is said to extend to raising fallen cab-horses in the street by the power of "right thinking." Nevertheless Mr. Stead, who would seem to be as much above evidence as the Emperor Sigismund was above grammar, "can vouch for the fact "that he has done great good and achieved results in "cases which have baffled the efforts of the faculty "and all friends who have been sought to relieve "sufferers both by the mediation of the medical "pharmacopoeia and by the conventional method of "prayer." What does Mr. Stead consider the voucher of one who has had no opportunity of sifting the evidence to be worth? Mr. Rawson, we are told, is not without hope that he may be able to banish death from the world. In this, if we are to believe a witness quoted by Mr. Stead, his electricity is less potent than the metaphysics of the Christian Scientists, some of whom are said to have raised people from the dead. It is true Mr. Stead is inclined to believe that they were not really dead; but if there be no such thing as death, what difficulty can there be in conjuring away a mere delusion? We have, by the way, to thank Mr. Stead for a delightful phrase; he says the testimonies given at meetings of Christian Scientists "are "enough to stagger the most credulous!" No wonder they staggered him.

We have next brought before us a Mr. W. H. Edwards, a magnetic healer, who claims that he effects all his cures by the direct help of his spirit friends. With an apparent simplicity in which may, perhaps, lurk a grain of malice, Mr. Stead tells us that he introduced Mr. Edwards to Mr. Rawson, "but the two "healers did not benefit each other." Perhaps, like the soothsayers of old Rome, they had to use up all their electric and magnetic force in suppressing a tendency to laughter.

Of Mr. J. M. Hickson, the President of the Society of Emmanuel, we hear that he casts out devils, heals the sick, and does everything short of raising the dead. From a list of "typical cases" Mr. Stead selects the following remarkable "cure." The patient "fell and "injured the patella, which had previously been "broken four times. Two doctors expressed the

"opinion that he would never have full use of knee "again. It was very painful and quite callous (*sic*) "at the time of first treatment by prayer, but in "twenty minutes he was able to bend it without help, "the following day to walk about the house, and after "four visits to resume ordinary duties." This beats bone-setting.

Here a question may suggest itself to the profane mind. As we have so many persons among us endowed with such supernatural gifts, how is it that their beneficent activity makes no appreciable impression on the amount of sickness and death which the Registrar-General still has to record? Mr. Stead does not know what to think of the marvels he has heard, and ends with the sage reflection that "so long "as mortal men are really healed, so long will they "go to the healers, let the doctors say what they "will." To which we are tempted to reply: "Let "them go; if there is anything really the matter "with them they will come back again." As an illustration we may mention a sad case within our own knowledge. A man with some slight symptoms of bladder trouble consulted an eminent specialist, who discovered a small growth which could easily have been removed. It was arranged that the patient should undergo the operation. In the meantime, however, he fell among Christian Scientists, who persuaded him that he was quite well. And, indeed, for a time the symptoms almost ceased. But the insidious disease remorselessly went on its way, till the unfortunate patient was past all surgery. We repeat that what is wanted is a complete and well-authenticated account of these spiritual, electric, and magnetic cures, with the fullest details of the cases and their ultimate results. We make bold to say that these would be "enough to stagger the most credulous."

NEPHROPEXY AS A PANACEA.

THE foible of popular and even of professional medicine is to run after panaceas; antimony, mercury, venesection, tar-water, have each played their parts; and in later times hydropathy, electricity, massage, radiant heat, and systems of diet have made bold bids for the same universal validity. The means used must be new and capable of creating a distinct impression, while they must not be demonstrably injurious, or at least their use must not be attended by a high rate of mortality, or they are scarcely likely to attain great popularity. Only in recent times have surgical proceedings been capable of entering as competitors for this position, unless we include trephining, which in a distant past appears to have been looked upon as a remedy for many diseases of very various etiology. But antiseptic or aseptic surgery has rendered it possible to recommend as remedies for all sorts of symptoms operations which would previously have been dangerous in themselves. The pioneers were the gynaecologists, and the cervix uteri was at first the favourite object of their operations; this part of the human body a few years ago was indifferently either split asunder or stitched up in order to cure identical maladies which were with more or less confidence declared to depend upon the presence of certain local conditions these procedures were designed to remove. With the improvement in surgical technique gynaecologists became bolder, and transferred their attention to the uterine appendages, which were removed to cure epilepsy, hysteria, and even insanity, with sufficient success to give plausibility to the remedy for a time. Space will not allow us to detail every operation which could be quoted from the history of the last few years, but among the latest is nephropexy, which finds a strong advocate in Mr. Billington, of Birmingham. His experience extends to 150 cases upon which he has operated for movable kidney during the past three years, and he divides them into five groups—a convenient classification, as probably no one denies that there are cases of the kind for which the operation is not only justifiable but necessary. The cases constituting his first group, are those in which the prominent symptom is local pain made worse by the upright position and by exertion, and relieved by lying down. Unfortunately, Mr. Billington does not state the number of these cases on which he has operated, but we may infer it by subtracting those given under the other headings. He enumerates 112 in the second, third, and fourth groups, but gives no details about the fifth, so if we assume that about 30 cases were in his first group we shall not be far wrong, and if all were similar to the three examples given the treatment calls for no criticism. The second group was made up of those patients with symptoms associated with the digestive system, such as would be called nervous dyspepsia. Of the two cases given as examples, in neither can it be said that a cure was effected, and although Mr. Billington says he "has every reason to "be satisfied with the results in the twenty cases "in which he has operated" the evidence he lays before us is inconclusive. In the third group the patients were suffering from symptoms of neurasthenia; and there, again, the examples given do not show complete cure, and Mr. Billington admits that "there have been failures." In Group 4 there were 12 cases of "undoubted lunacy," of whom 6 are claimed as cured; brief notes are given of 3 only, and of these 2 were instances of conditions of acute insanity from which spontaneous recovery might be expected; while of the third we should have liked more definite evidence of recovery than the hearsay statement quoted. Of the fifth group, which included cases in which the prominent complaint had reference to the female pelvic organs, Mr. Billington admits that his experience is limited, and he gives no details. He claims as the result of his experience to have proved that nephropexy is a safe and satisfactory surgical procedure, and while saying very properly that renal mobility alone is not an indication for the operation, he regards local pain of sufficient severity to diminish working efficiency as such an indication. This conclusion may be accepted, and it may be agreed that so far Mr. Billington has made out his case, but when he asks us to agree that chronic functional disturbances of the digestive system and progressive spinal and cerebral neurasthenia and insanity depend upon movable kidney and may be cured by stitching it in position, we remain in doubt.

Dr. Suckling has published a second edition of his book on *Movable Kidney*,[1] which contains an exposition of the principles upon which Mr. Billington's operative indications are based, and to which he refers. Dr. Suckling claims that the operation is a cure for insanity, neurasthenia, nervous dyspepsia, and many other conditions; and although there is no reason to doubt that in a certain number of cases improve-

[1] *Movable Kidney*. By C. W. Suckling, M.D. Simpkin, Marshall, and Co., Limited. 1909.

ment has followed, it is less easy to believe in the dependence of these nervous conditions upon the displaced kidney; the favourable results directly attributed to the operation may very well have been due to suggestion.

Sir W. Watson Cheyne has recently published[2] an address on movable kidney in which, while recommending a special method of performing nephropexy, he expresses his opinions upon some of the general questions we have been discussing. He is satisfied that the operation is a good] one, and thinks that failures are due either to the fact that the loose kidney was not the main cause of the trouble of which the patient complained, to the organ not having been fixed in the proper position, or to its having again become loosened. In the causation of movable kidney he attaches most importance to congenital defect and to mechanical influences, but he doubts the importance of emaciation, as he says that in the *post-mortem* examination of patients with movable right kidney it has been found that the fatty capsule on the other side is "quite satisfactorily developed, and often "remains in considerable amount even though the "patient be emaciated." Hence he regards the treatment by keeping such patients in bed and trying to increase their fat as futile. He recognizes the direct effect of the mobility upon the kidney itself, which may become the seat of hydronephrosis or chronic atrophic nephritis, and also the production of such general symptoms as giddiness, anaemia, neurasthenia, and even insanity, quoting Dr. Suckling for this last statement.

With regard to the association of movable kidney with neurasthenia, Sir W. Watson Cheyne expresses the opinion that general enteroptosis is often present, and that when this is so the operation of nephropexy can only partially remedy the mischief, and is, therefore, contraindicated. General experience teaches that not only may no benefit result, but the state of the patient may be rendered worse, and he says that he has come across a good many cases in which this has occurred. He adds, however, that it is possible that the unfavourable opinion now entertained of the result of the operation in neurasthenia may have to be modified should Dr. Suckling's results be confirmed.

We do not understand why there should be any failures such as Mr. Billington admits, if the connexion between the displaced kidney and the nervous system is as close as Dr. Suckling believes. Mr. Billington says that he is now of opinion that where both kidneys are movable both should be stitched up, and that the double operation does not appreciably increase the risk. We recognize the logical nature of this conclusion; but, if so, how does he explain the recovery of such a bad case as the second example of neurasthenia given under Group 3? In this patient both kidneys were down yet only one was fixed, but nevertheless at "the end of six weeks she climbed to "the top of the Herefordshire Beacon." Surely this case ought to be accepted as a splendid illustration of the excellent result of stitching up one kidney and of the harmlessness of the mobility of the other, and the only reason for rejecting this conclusion must be that it is totally opposed to Dr. Suckling's doctrine that renal mobility, even when slight and painless, is a cause of grave nervous disturbance, a doctrine which we believe to be not only unsound but dangerous.

[2] *Lancet*, April 24th, p. 1155.

VOX RECLAMANTIS.

The most pushful politicians have what Sydney Smith called "flashes of silence"; controversialists sometimes cease from troubling, and even the popular preacher and the suffragette are occasionally quiet. But the voice of the quack is always heard in the land. This, of course, is the law of his existence, and we should be glad to pass him by with a *populus vult decipi*, were it not that he, his claims, and his testimonials are constantly thrust upon our attention by correspondents. If all the communications we receive on this subject were dealt with separately, there would be little room in the Journal for anything else. We can mention only a few of them here. One correspondent has obligingly sent us a *Pocket Guide to Count Mattei's Medicines*. We fondly believed that this particular system of humbug had been exploded long ago. The pamphlet bears the name of A. J. L. Gliddon, who would seem to be the vendor of the remedies. It is interesting to recall that Mr. Gliddon was announced as the seller of a drink cure, the virtues of which were described in Mr. Stead's most flamboyant style in a letter which that inspired journalist contributed to the *Daily Chronicle* of October 30th, 1893. We note that Mr. Stead is quoted in Mr. Gliddon's pamphlet as saying that, if ever he had an attack of indigestion, he could always get rid of it in half an hour by using the Mattei remedies. Mr. Stead's eyes should have been opened to the real value of the Mattei remedies by his own experience as a member of a committee formed to test their use in the treatment of cancer. According to a report on the subject which appeared in the Journal of August 13th, 1892, p. 369, Mr. Stead, who went into the investigation as a convinced Matteist. "expressed himself as thoroughly ashamed of his "champions." But in the province of medicine Mr. Stead has what may be called an *anima naturaliter circulatoria*; by the temper of his mind he inclines to quackery. So far from being ashamed of this, he has, if we are correctly informed, been heard to boast of this mental peculiarity. In any case he would seem, in the matter of the Mattei remedies, to be even worse than the Bourbons in the matter of government: for whereas they learnt nothing and forgot nothing, he learnt something which he has since forgotten.

Another correspondent has sent us an advertisement announcing the discovery of a "breathing cure" for catarrh, adenoids, and nose breathing difficulties. The evil effects of breathing through the mouth are vividly described; we learn that the "pent-up catarrhal slime" finds its way into the liver and kidneys, causing all sorts of trouble. The cure has the simplicity of Columbus's famous egg demonstration; all that is required is that the nose should be freed by lifting the outer edges of the nostrils. As the learned doctor who communicates the discovery to the world racily puts it, this "unstops the most stopped-up nose." But of course the matter is not quite so simple as this; "upon this first-step discovery has been built an "anatomical-physiological cure, the details of which, "are given fully in a book which can be obtained," etc. In view of the far-reaching consequences which may be caused by neglected adenoids, it is a pity that persons who prey in this way on the credulity of the public, and the newspapers which aid and abet them in so doing, cannot be brought within the grasp of the law.

A third advertisement which has been brought

under our notice is chiefly remarkable for its extraordinary English. The advertiser, an Italian, complains bitterly of the "disloyal concurrence which is being made" to his product "by dishonest speculators "although without the least initiative." This, he says, "constairns me, in the interest of Doctors as well as "of consumers, to put them on the guard from the "innumerable falsifications, imitations, and counter-"feiting executed to a great extent by small as well as "important vendors by illecit and dishonest means. "Reserving the right to summon before the Criminal "Court these audacious counterfactors, and awaiting serenely the results of the suits against those whom "I have already denounced to the proper authorities, "I beg to request Doctors to make use in their pre-"scriptions of the phrase"—[here follows the name of his product]—"and the consumers to observe with "diligence and care the existence of the specific indi-"cations of my firm, to which is due the merit of "having enriched the Pharmacopoea with a new potent "drug approved and recommended by the Principal "Italian and Foreign Scientists." He goes on to say that "these Crystals, prepared with the greatest "scientific care, represent the ideal cure in all the "forms of arthritis, in Dispepsia, Intestinal Torpor, "Uric and Biliary Litiasis, Uriamia, Polisarcia, and "all other sickly forms dependent from the deviations "of the material rechange." This catalogue of strange diseases almost persuades us to give the name of the remedy which cures them. On second thoughts, however, we refrain, lest the physician, who is slowly but surely being despoiled of his kingdom by ever-encroaching surgery, specialism, vaccine-therapy, and immunization, should find himself a *roi en exil*. But while "uriamia" and "other sickly "forms dependent from the deviations of the "material rechange" remain, his occupation will not be entirely gone.

HOMES OF REST FOR DOCTORS.

IT was announced not long ago that Mr. George Smith, M.R.C.S., L.D.S., of Newent, Gloucester, who died on December 19th, 1908, at the age of 77, and left estate valued at £11,669, had bequeathed the residue after the payment of sundry legacies to the Royal Infirmary, Manchester, and University College Hospital, London, in equal shares. The bequest is to be used for the benefit of one or more members of the surgical or dental staff of these institutions who may be disabled by infection from puncture, or who may have contracted blood poisoning whilst examining or operating on patients or after making *post-mortem* examinations. There is scarcely any other calling more exposed to physical danger of one kind or another than that of medicine. It is not uncommon to read of the death of a surgeon from septic infection contracted in the course of an operation, but comparatively few of these cases are ever heard of beyond the immediate circle of his friends. The amount of temporary disablement from this cause is very great. The public believes that the doctor bears a charmed life. This, as we know too well, is a mere superstition. From the threshold of medical study the student is constantly exposed to risk in the dissecting-room, in the deadhouse, in the hospital ward, in the operating theatre, in the sick-room; even in the laboratory invisible enemies encompass him around. If he escapes death, he is often disabled—it may be, permanently. Some of these risks dog his footsteps throughout professional life. Of exposure to weather, of the ill effects of irregularity in meals, and of the anxieties inseparable from his profession which help to place the doctor almost at the bottom of the scale of longevity, we need not speak. Mr. George Smith's bequest will do something to relieve those who are incapacitated by a particular cause. But there remain innumerable other risks which bring about premature breakdown in medical practitioners, and the cases are too numerous in which disablement or infirmity overtakes them before they have been able to make any provision for their old age. There are, of course, the benevolent societies, in praise of which it would be impossible to speak too highly. But they are few, and their resources are insufficient to meet the demands made upon them. We therefore call attention to a scheme which has recently been set on foot in France with the approval and patronage of such men as Professor Landouzy, Dean of the Paris Faculty of Medicine; Professors Chantemesse, Fournier, Hutinel, Guyon, Lannelongue, Le Dentu, Lucas-Championnière; Dr. Roux, Director of the Pasteur Institute; Dr. Vaillard, Director of the Val-de-Grace; M. Mesureur, head of the Assistance Publique; M. Lépine, Prefect of Police; Professor Hugounencq, Dean, and Dr. Testut, professor, in the Medical Faculty of Lyons; Professors Mairot and Grasset, of Montpellier; and most of the directors and principal professors of the medical schools in France. The proposal is to create one or more houses of retreat, rest, and health for French doctors. The idea originated with Dr. Courtault, Editor of *Tablettes Médicales*, and Dr. Lucien Nass. In 1857 Orfila, the famous toxicologist, then Dean of the Paris Faculty, suggested a similar scheme, but death prevented his carrying it out. Dr. Courtault gives a distressing account of the present condition of the profession in France. The State, the department, the commune vie with each other in exacting more and more work at a lower wage from the doctor. To-day the provincial practitioner eats, sleeps, writes, and studies in his carriage. He early becomes rheumatic, and before long becomes unfit to compete with younger men. In the Department of the Seine, of a total of 3,500 doctors, 700 are in the receipt of assistance from various associations. When he is old, solitary, and disabled, the doctor is often compelled to migrate to some lonely spot that his poverty may not be known to his acquaintances. Of this we could cite various instances within our own knowledge in this country. We need only refer to the case of a famous teacher and hospital surgeon, long dead, whose name is in every textbook of physiology and surgery; yet he was rescued from actual starvation by the charity of his colleagues, to whom his condition became known by a fortunate accident. Nor is his by any means a solitary case. It is for such as these that the "Maison du Médecin," which it is proposed to found, is intended. It will belong to the whole medical body, and will be open to all—to those who can pay nothing as well as to those who can contribute a certain amount. It will be the aim of the directors to make the existence of the inmates as comfortable as in the best kind of boarding house. The charge will be £48 a year. In the case of those who have not sufficient means this sum will be paid by the Association or by the house itself; the council alone will know the terms on which the inmates are received. It will not be a poorhouse, but a refuge for honourable poverty, and above all a place of temporary rest for those who have been wounded in the struggle for existence. The first house will probably be situated on the borders of the forest of Saint-Germain. We should be glad to see something of the same kind established here.

ANTIVIVISECTION IN DUBLIN.

THE Irish Branch of the National Antivivisection Society held its annual meeting in Dublin on April 22nd. The report of the committee stated that the number of subscribers was 300. Mr. R. R. Cherry, K.C., Attorney-General for Ireland, who presided, after referring to the "horrors" of vivisection, said, with a humour which we hope was unconscious, that he did not wish to exaggerate. He went on to state that he knew that vivisectors told them their experiments were carried out in so humane a manner by means of anaesthetics that really there was no degree of suffering on the part of the animals. He was good enough to add that, "if that was true," it was in a great measure true by reason of the action taken by that and similar societies in other parts of the United Kingdom. Of this statement Mr. Cherry vouchsafed no shadow of proof; and as it is part of the antivivisectionist case that animals are not in fact anaesthetized, it would be interesting to know on what ground Mr. Cherry made such a claim on behalf of these societies. If we may use a popular phrase, they cannot have it both ways. The Attorney-General for Ireland, who does not wish to exaggerate, proceeded to rehearse anew the old, old legend about the appalling increase of experiments, and how they were almost all done without anaesthetics. Really Mr. Cherry should leave this kind of thing to Mr. Stephen Coleridge, whose chief weapon in debate is to "ingeminate" the word "torture." Mr. Cherry says that under the existing Act a great amount of suffering is caused, "partly through callousness and partly "through inattention to that Act." Clearly the learned gentleman had not got up his brief, and we should recommend him, before speaking on the subject again, to study the evidence given before the Royal Commission on Vivisection. We commend to his special attention the evidence of the antivivisectionist witnesses. A resolution was proposed by the Rev. J. Warschauer, in seconding which Dr. W. J. Cameron, according to a report which appears in the *Irish Times* of April 23rd, made the remarkable statement that in his student days he was in favour of vivisection, and performed many vivisections "after making sure that the animals were dead." This is, we suppose, how he learnt the art, in which antivivisectionist controversialists are so proficient, of flogging a dead horse. We have often had occasion to point out that the vivisection campaign is really a movement of perverted sentiment rather than humanity. Its essentially inhumane character is well shown by certain statements made by Sir John William Moore at the annual meeting of the governors of the Meath Hospital held in Dublin on April 10th. After acknowledging their indebtedness to the Distribution Committee of the Hospital Sunday Fund he went on to say that the subscriptions had fallen off within the last few years. He wished to state publicly that the charge which had been brought against that and other hospitals that vivisection was practised within the precincts of the hospital was a deliberate and unfounded falsehood. There was no such thing in connexion with any Dublin hospital, and it was a calumny to advance that statement. The statement had done harm to the Dublin Hospital Sunday Fund, as he had very good reason to know. Mr. Coleridge, writing in the *Irish Times* of April 23rd, professes to think that "it will afford sincere pleasure "to all our readers to peruse these forcible repudia-"tions of vivisection in connexion with hospitals," and he proceeds to improve the occasion by contrasting Dublin with London, as if vivisection were carried on in London hospitals. He has had every opportunity of learning that this is absolutely untrue. He may, perhaps, remember that we ourselves helped to enlighten his mind on this point when he tried to make people believe that "clinical material" for the instruction of students meant living human bodies for the study of diseases by physiologists! If hospitals are not adequately supported, human beings must suffer. But what is that to the sentimentalists who shudder at the supposed "torture" of a guinea-pig which has undergone the prick of a needle?

THE RAT FLEA AND PLAGUE.

THE Commission for the Investigation of Plague in India, abstracts of the publications of which in the *Journal of Hygiene* have appeared in this JOURNAL from time to time,[1] adduced a mass of evidence in support of the conclusions (1) that in India human plague is conditioned by the epizootic among the rats, and (2) that the agent in transference from rat to rat and from rat to man is the common rat flea of tropical climates, *Pulex cheopis*. In the experiments carried out in Bombay the only means by which the Commission were able to produce epizootics amongst animals was by means of rat fleas. When precautions were taken to eliminate fleas from the houses in which the animals lived no epizootics occurred, notwithstanding the closest contact of infected animals with healthy ones. The massive infection of the floors of the houses with virulent cultures of plague bacilli was equally unsuccessful. The epidemiological observations of the Commission, both in Bombay and in certain Punjab villages, brought to light no facts in the least discordant with the animal experiments. All the epidemiological data collected could be adequately interpreted by the hypothesis that infected fleas transmitted the disease from rat to rat, and that when their natural host became diminished by the severe mortality of the epizootic, the insects sought man for a supply of nourishment, and so conveyed the infection in a percentage of cases. At the Bombay Medical Congress the discussion on plague in Section II was opened by a paper by Professor Kitasato, the Director of the Institute for the Investigation of Infectious Diseases in Tokio, and one of the discoverers of the plague bacillus. This paper was listened to with great interest, as only a few years ago Kitasato had stated his opinion that the rat flea played no part in the epidemiology of plague. The paper which was read by Professor Shiga, the Head of the Serum Department of the Tokio Institute and the Delegate of the Japanese Government to the Congress, gave a summary of some recent investigations made by Kitasato during a plague epidemic in a small town in Japan. The main facts elicited were as follows. In Japan as a general rule the common rat flea is not *Pulex cheopis*, but in the town in which the present epidemic took place *Pulex cheopis* amounted to 80 or 90 per cent. of the fleas taken on rats. The epidemic was accompanied by a severe mortality amongst the rats, and Kitasato brings forward evidence of the same nature as that accumulated by the Indian Plague Commission to show that the transmitting agent between the rat and man was the rat flea (*Pulex cheopis*). Guinea-pigs as traps were placed in plague houses, control animals being put into non-plague houses at the same time. The number of fleas caught in the former many times exceeded the number trapped in the non-infected houses. Again, a certain percentage of the fleas caught in the infected houses were found to contain abundant plague bacilli in their stomachs while none of those from the non-plague houses were shown to be infected. Further, animals in the laboratory were infected with fleas

[1] See 1906, vol. ii, p. 1045; 1907, vol. ii, p. 155; 1908, vol. i, p. 211, and vol. ii, p. 91.

from the infected houses, but none with those from the clean houses; and, finally, certain of the guinea-pigs let loose in the plague houses contracted the disease, while those placed in the control houses always remained healthy. In concluding the paper Kitasato stated that he had brought forward no new facts and that he had only confirmed the observations of the Indian Plague Commission, to the work of which he paid a high tribute of praise.

THE DEVELOPMENT OF TRYPANOSOMES IN TSETSE FLIES.

The Sleeping Sickness Bulletin for March, 1909, amongst other interesting papers, contains a notice of one by Professor Kleine from German East Africa, entitled, "Positive Infection with *Trypanosoma brucei* by *Glossina palpalis*." Dr. Bagshawe, the editor of the *Bulletin*, summarizes the conclusions obtained, and, if these ultimately turn out to be accurate, then a very important phase in the life-history of the trypanosomes will have been discovered. Professor Kleine fed tsetse flies (*Glossina palpalis*) for three days on sheep naturally infected with the parasite of nagana (*Trypanosoma brucei*), and after this from the fourth day onwards daily on fresh healthy animals. Up to the sixteenth or seventeenth day nothing seemed to happen, the blood of the experimental animals, though frequently examined, remaining free from parasites, but from the eighteenth to the thirty-ninth day and onwards trypanosomes appeared. The details of these experiments are as follows:—From the eighteenth day to the twenty-fourth the flies fed on the same sheep (No. 30) from the twenty-fifth day to the thirty-ninth on the same ox (No. 2); twelve days after the flies were put on No. 2 ox its blood showed trypanosomes, and so No. 30 sheep was then also examined and found to have parasites. All the previous animals remained healthy. From the fortieth to the fiftieth day the flies were fed on two goats, two calves, and two sheep; all became infected, the goats after eight and six days, the calves after six and five days, the sheep after seven and five days. These experiments seem to prove that flies which for many days after the ingestion of blood containing trypanosomes were not infective afterwards became so, and infected animals; and the most probable explanation is that the parasites underwent development in the fly analogous to that observed in mosquitos with the parasites of malaria and yellow fever. Dr. Bagshawe criticizes the experiment in some of its details, wild flies appearing to have been used instead of bred ones, and he asks the question, Were all the animals so placed that biting flies could reach neither the sick nor the healthy? The matter is so important that further independent experiments to confirm or confute Kleine's results are much to be desired, and we have no doubt they will soon be forthcoming, and will also clear up dubious points such as those mentioned above. The idea of a development of trypanosomes in tsetse flies is, of course, not a new one, most workers on the subject believing it probable; but until the present paper definite proof has not been forthcoming. The importance to sleeping sickness of the observation is that the life-history of the two trypanosomes, *gambiense* and *brucei*, is in all probability similar, and this will of course influence the prophylaxis of the human disease considerably.

ST. BARTHOLOMEW'S HOSPITAL.

IN a detailed consideration of the future of London hospitals published in this JOURNAL on June 20th last year, note was made of the fact that the vast majority of all London hospitals were annually spending more on ordinary upkeep than they were receiving in income, and were thus helping to pile up between them a vast burden of debt over and beyond that directly resulting from building operations. It was shown, too, that the oldest hospital in the metropolis, St. Bartholomew's, at one time a happy exception to the general rule, had at length put in an appearance among the debt accumulators. At that time the excess of its expenditure over its income was comparatively small, but reasons were given for anticipating that this balance on the wrong side would before long become as great in the case of St. Bartholomew's as in that of any of its fellows. This prophecy seems likely to be fulfilled with even greater speed than was anticipated, for a report by the new treasurer of the hospital, Lord Sandwith, shows that the excess of annual expenditure over annual income reached last year a sum of £8,000. In the case of many institutions the excess of annual expenditure on maintenance and administration over ordinary income is due to extravagance; not, perhaps, in the year in question, but at some recent period when schemes of enlargement have been adopted without sufficient funds to maintain the new beds, when provided, being either in hand or in sight. Many institutions, indeed, have multiplied their accommodation even though totally unable to maintain out of annual income the beds which they already possessed. The difficulties of such institutions are the natural result of forgetting the wisdom of cutting a coat according to the cloth provided. St. Bartholomew's, however, is not a case in point. It has never suffered from megalomania, and the number of its beds remains exactly what it was many generations, if not hundreds of years, ago. Its ambition, in short, has been, not to increase the amount of its work, but merely to perfect the fashion of its performance. Nevertheless, its balance on the wrong side is readily comprehensible. The expenditure of all hospitals not less than that of most householders is subject to what may be called a "natural" increase. This increase in the general cost of life, if scarcely perceptible at any given moment, is yet steady, and must in the course of time make a most material difference to any large institution. Hospitals, for instance, in spite of the work they do for the public, and especially for the poor, pay rates just like other people. Rates, as most of us know, tend constantly to increase, and many hospitals in London under this heading alone pay out upwards of £1,000 a year. This "natural" increase is comparatively unimportant at most institutions, since its effect is eliminated by the elasticity of income resulting from the multiplicity of the sources from which it is derived. In addition to receipts from invested property they annually receive large sums in the way of donations, subscriptions, and bequests, whereas St. Bartholomew's has hitherto practically depended on income from invested capital alone, and the net value of such incomes at the present day everywhere tends to decrease. The commencing difficulties of St. Bartholomew's are, therefore, perfectly comprehensible apart from any additional expenditure which may be thrown upon it by the improved fashion in which its work is conducted. The idea of St. Bartholomew's as an applicant for public support is somewhat of a novelty, for in a history of five or six centuries it made its first venture in this direction only some six or seven years ago, when, in accordance with the findings of an independent commission, it was decided to rebuild the institution and on its existing site. Unfortunately, the appeal then made threatened to coincide with a corresponding effort on the part of a very popular and

constant applicant for public support, and the most conspicuous net result was a crusade against St. Bartholomew's in the general press. Happily this onslaught failed in its professed object, but it had the effect of leaving an impression on the public mind that St. Bartholomew's was a very rich institution which stood in no need of donations, subscriptions, or legacies. Whatever may have been the case at that time, the position is now changed, and the institution, a magnificent example of hospital enterprise, should receive the same meed of support from the public as that accorded to kindred institutions, which are its rivals, it is true, but only in good works and scientific efficiency.

THE SLEEP CURE.

IN these days of strenuous life, sleep shows more and more a disposition to follow Astraea and go back to heaven, from which, according to Elizabeth Barrett Browning, it came:

> Of all the thoughts of God that are
> Borne inwards into souls afar,
> Along the Psalmist's music deep,
> Now tell me if that any is
> For gift or grace surpassing this—
> "He giveth His beloved sleep"?

How many of those whose fate it is to spend themselves in the stress of a struggle for a livelihood would echo those words! The difficulty is that the gift comes not to all. Large towns with their various noises, —or what is in some cases] worse, the intervals of suspense when the wakeful sufferer, like Carlyle, waits for the next crow of the importunate cock—murder sleep as effectually as Macbeth. Hence the large use of hypnotics at the present day, and the ceaseless search of investigators to find one that shall lap the weary brain in the Elysium of a refreshing sleep without leaving headache or dullness or other ill effect behind. High-frequency currents, massage by a skilled hand, and hypnotism, are not within the means of all, even if they could be depended upon to produce the desired result. We have often wondered why in these days of various therapeutic enterprise the idea which inspired Thomson's *Castle of Indolence* has not been applied for the treatment of the victims of sleeplessness. There all things tending to foster sleep were combined with subtle art:

> A pleasing land of drowsyhed it was:
> Of dreams that wave before the half-shut eye;
> And of gay castles in the clouds that pass,
> Forever flushing round a summer sky:
> There eke the soft delights, that witchingly
> Instil a wanton sweetness through the breast,
> And the calm pleasures always hovered nigh;
> But whate'er smacked of 'noyance, or unrest,
> Was far far off expelled from this delicious nest.

The inmates there did not sit "and hear each other groan"; there were "no dogs, no babes, no wives to stun the ear"; "no cursèd knocker plied by villain's hand"; but the soft music of the Æolian harp, and the soothing sound of falling waters brought sleep to tired lids. Even the howling of the wind was made into a lullaby:

> And oft began
> (So worked the wizard) wintry storms to swell,
> As heaven and earth they would together mell:
> At doors and windows, threatening, seemed to call
> The demons of the tempest, growling fell;
> Yet the least entrance found they none at all;
> When sweeter grew our sleep, secure in massy hall.

We now learn from the *Gazette Médicale du Centre* that what may be called a castle of sleep has been established by Dr. Lemesle, of Loches, in Touraine—that province of so many joyous memories and associations, where the climate is mild and equable, and the air, as Duncan says, "nimbly and sweetly recommends itself unto our gentle senses." Dr. Lemesle uses physical agents, such as fixation of the eyes on a bright object, and the monotonous ticking of a clock, to lull the senses of his patients. If these means, with the surroundings in which the patient is placed, do not succeed, he uses blue light. It was observed by Lumière of Lyons that people employed in workshops illuminated by red light became nervous and were quickly tired; these effects ceased when blue light was substituted. Dr. Lemesle, therefore, keeps his patients in a blue atmosphere; the glass in the windows is blue, and all the decoration and furniture of the room is of the same hue. At night the electric light shines through blue globes. Absolute silence is enjoined throughout the establishment. Dr. Lemesle, in fact, has carried into effect, with modern improvements, the conditions of a restful life imagined by the author of the *Castle of Indolence*. His aim is to make his patients spend as much time as possible in sleep, waking up at intervals to take food. The sleep cure, we have no doubt, would be most useful to many—for a time. The pity of it is that it is beyond the reach of those who need it most.

M. LUCAS-CHAMPIONNIÈRE.

THE annual address to the Cardiff Medical Society will, as has already briefly been announced, be given this year by M. Lucas-Championnière. The subject of the address, which will be delivered at 3.30 p.m. on Friday, June 4th, is the Modern Treatment of Fractures. The annual dinner of the Society—to which it will be glad to welcome any member of the profession who desires to be present[1]—will be held on the evening of the same day, and afterwards M. Lucas-Championnière will formally make the presentation of the Lynn Thomas and Skyrme Fund. To this fund, as our readers are aware, subscriptions have been received from medical men in all parts of the world, and it is therefore very appropriate that this presentation should be made by M. Lucas-Championnière, since he is President of the International Surgical Association. M. Just Lucas-Championnière was born in 1843 at St. Leonard, Haute Vienne, the birthplace also of Gay-Lussac, the physicist. The future surgeon began his medical studies in Paris in 1860, graduated M.D. in 1870, and became surgeon to the Paris hospitals four years later. In the interval he paid a visit to Great Britain at the time when Lister was organizing that revolution in surgery the full significance of which it was not given to every one of that day to perceive. The young French surgeon, however, saw clearly that facts were being established which would entirely change the whole attitude of mind of the surgeon, and when he returned to his own country he at once applied Listerian principles in his own work. In the face of criticism, opposition, and some little ridicule he practised and advocated antiseptic surgery, not only by example but also by precept, for the first edition of his work on the subject was published in 1876. As an original thinker his name is more especially associated with the immediate treatment of fractures by massage and mobilization, the subject which he has selected for his address at Cardiff. M. Lucas-Championnière has retired from active surgical practice, but he is honorary surgeon to the Hôtel-Dieu and a member of the Academy of Medicine, while his cosmopolitan reputation is proved by his election at Brussels last year to be the President of the International Society of Surgery, an office in which he has been preceded by Professor Kocher of Berne and Professor Czerny of Heidelberg. M. Lucas-Championnière was present as a guest at the Annual

[1] Tickets, price 7s. 6d., and all further particulars can be obtained from the Honorary Secretaries of the Society, Dr. F. P. S. Cresswell, 24, Windsor Place, or Dr. William Martin, 17, Windsor Place, Cardiff.

Meeting of the British Medical Association in Sheffield last year, and received the honorary degree of D.Sc. from the University. We feel sure that he will find as warm a welcome and will make as many friends in the Principality this year as in Yorkshire in 1908.

COAL MINE BATH-HOUSES.

IT is no uncommon sight in a pit village in the Northumberland and Durham coalfields, and possibly in others, to see a coal miner, freshly returned from the pit, being scrubbed down in a hot bath by his wife, for in fine weather, at any rate, it is or was customary to go through these very necessary ablutions *coram publico*. They were very thorough with, so we are informed, the curious exception that they did not include the back; the collier, it seems, entertains the belief that if the back is washed it is weakened. How this superstition arose we do not know, but one consequence is that that part of the northern miner's person escapes soap and water unless he happens to be off work for a considerable time. The whole system seems a little primitive, but Mrs. Grundy, being accustomed to it, was not shocked. Recently, however, there have been some questionings, and proposals for establishing bath-houses at the pit heads, but, so far as we know, they have not materialized, and it has been left for the Fife miners to take the lead in this matter. The experiment, it is understood, is about to be tried in connexion with one of the Fife Coal Company's mines. The idea is to provide bathing accommodation for the miners, so that on leaving the pit after the completion of their shift they may be indistinguishable from other members of the community except, perhaps, for the added purity of their skin. The details are still under consideration, but it is stated that the accommodation will be provided on such a plan that it can readily be extended to meet any fresh demands. The baths will be of the spray description.

SUBTOTAL HYSTERECTOMY AND THE MENSTRUAL FUNCTION.

HOWARD KELLY[1] deprecates radical operation on the uterus as a routine measure. He not only practises myomectomy in preference to hysterectomy for fibroid, but also leaves portions of the body of the uterus in operations for fibroid tumours, where myomectomy would be unsafe, and for haemorrhagic uteri. He refers to the good results claimed by Zweifel, Spinelli, and Doran, where a portion of endometrium is saved, as well as one or both ovaries. Doran four years ago[2] reported the after-history of sixty cases in which he had performed subtotal hysterectomy, and showed that the physiological results were satisfactory. Kelly follows their practice, keeping a portion of the uterine body, with its mucosa, above the cervix in women who are still menstruating. It is sufficient, he insists, to retain a little pocket of the mucosa within the uterus big enough to lodge the end of the little finger, though more should be kept if possible; with the mucosa the corresponding portion of the muscular investiture is included. This end is obtained simply by carrying the knife through the uterine wall well above the cervix; the tissues thus preserved are sutured face to face, so as not to interfere seriously with the blood supply. It is absolutely necessary that in any case one or both ovaries be sound enough to be retained. Kelly practises two varieties of this conservative amputation. The first is horizontal resection, the operation performed by Doran; it is, Howard Kelly considers, the best in cases of fibroid uterus. The second is vertical resection, a wedge being taken out of the centre of the uterine body beginning at the fundus and reaching down to the cervix, so that half or more of the uterine body with its mucosa is removed. The two raw surfaces are then approximated and closed with catgut stures. Vertical resection is, he thinks, preferable in cases of subinvoluted haemorrhagic uteri. A kind of utriculus is left after horizontal or vertical resection, which continues to menstruate moderately, and obviates the evils of an acute menopause. In conclusion, Kelly reports nine typical cases in which this conservative operation has been followed by the best physiological results, independently of recovery from the operation.

[1] *Amer. Journ. Obstet.*, April, 1909, p. 570.
[2] *Trans. Obst. Soc. Lond.*, vol. xlvii, 1905.

INTERNATIONAL CANCER RESEARCH UNION.

THE Central Committee of the International Cancer Research Union held a meeting at Berlin, under the presidency of His Excellency Professor Czerny, on April 16th. The foreign committees were represented as follows: The Belgian, by Professor Willems of Ghent; the Danish, by Professor Fibiger of Copenhagen; the French, by Dr. Borrel of Paris; the Japanese, by Surgeon-General Kawaschima; the Swedish, by Professor John Berg of Stockholm. Among the German members present were Professors Bumm, Kirchner, and Orth of Berlin. A report of the progress of the Union in various countries was presented. The question of establishing stations for the examination of preparations of cancer with the object of faciliting the early diagnosis of the disease was discussed. Another scheme which was considered was the foundation of museums for the promotion of cancer research. The commission for the investigation of cancer appointed not long ago by the King of the Belgians was affiliated with the International Union. On the invitation of the French Cancer Research Society, it was decided to hold the next meeting of the International Conference in Paris towards the end of September, 1910. At that Conference a report based on statistics collected from various countries and on the results of operation for cancer will be presented.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Education (Administrative Provisions) Bill gave rise to a very interesting debate on April 23rd. Mr. Dunn, in moving the second reading, said the bill proposed to amend the Act of 1907 dealing with the medical inspection of children, and the provision of meals provided for by the Act of 1906. By the first clause of the present measure the local education authority would be relieved of the final responsibility of saying whether a child was underfed or not, and the duty would be imposed on the school doctor, medical officer of health, or other medical official. Children supposed to be underfed would be examined by the medical inspector, and if they were reported as needing nourishment, it would be the duty of the local authority to feed them. If the halfpenny rate were not sufficient to cover the cost, the rate could be increased. In some districts the local authorities had refused to avail themselves of their powers under the Act of 1906. Mr. W. T. Wilson, a Labour member, seconded the motion for the second reading. He argued from the grave conditions that existed in some districts that it was the bounden duty of the State to undertake the work of feeding the children and concluded that the cost to the rates would be more than counterbalanced by the efficiency of the children. Sir Francis Powell moved the rejection of the bill, and, reviewing the work done under the existing Acts, argued that, considering the magnitude of the question, it was premature to reopen it. They ought to obtain more

experience, before opening the field of work, in many districts most satisfactorily done, to the boundless increase of the burdens of the ratepayers. Lord Morpeth seconded the motion for rejection, and argued against the powers proposed to be given to the medical profession. It would be dangerous, he said, to give the medical profession full power to order the feeding of children without the final check of the common sense of laymen. Sir William Collins, while sharing the sympathies of the supporters of the bill, was anxious that these important questions should be decided by the dictates of their heads rather than by the impulses of their hearts. He was inclined to think that the duties proposed by the bill would not add to the dignity of the members of the medical profession, and certainly not to that of the local authorities. While recognizing the obligation on the parent and on the State with regard to the children during their school-life, he was not prepared to go beyond the great experiment in the Acts of 1906 and 1907. A great deal of valuable information was being collected under the existing law, and most difficult questions were arising on the results of medical inspection, as to medical treatment, and how it was to be afforded. The questions of feeding, inspection, and treatment all hung together, and he thought it would be unwise, without further serious investigation, to amend the recent legislation. The second reading was supported by Mr. Parker, Mr. Curran, Sir J. Duckworth, and in a very passionate and pathetic appeal by Mr. Crooks. On the other hand, Sir F. Banbury, Mr. Peel, Mr. Scott, Mr. H. Gooch, and Mr. Harold Cox opposed, and the last-mentioned speaker, in attacking the measure as an attempt to transfer the children from the care of their parents to that of the State, raised a sharp outburst of opposition from the Labour members, which was voiced by Mr. Ramsay Macdonald and Mr. A. Henderson. Mr. Runciman, as Minister of Education, opposed the second reading, and described the bill as a measure of public charity. It had not been proved that the Act of 1906 had failed; 193 local authorities said they had not found it necessary to put it into force, either because there was no local need, or because the children were otherwise provided for. Some eighty authorities had availed themselves of the statute. The bill would set up different, and possibly conflicting, jurisdictions, and did not limit the provision of food to children incapable of deriving advantage from education. In this respect the bill went far beyond the Act of 1906, and was really a Poor Law proposal, and would, if passed, embarrass the Government when, next session, they had to consider Poor Law administration. The bill was thrown out by 206 votes against 82.

The Local Education Authorities (Medical Treatment) Bill, which passed the second reading stage late at night last week, has been referred to Standing Committee A.

The Exclusion of Unvaccinated Children from Schools.—Sir Maurice Levy last week asked the President of the Board of Education a question as to the exclusion of unvaccinated children from endowed schools, schools assisted out of the rates, or schools entirely self-supporting, and Mr. Runciman replied that he was advised that governors of endowed schools regulated by schemes made under the Endowed Schools Acts and Charitable Trusts Acts were not as a rule prohibited by the scheme from excluding an unvaccinated child if they considered that so to do would promote the welfare of their trust. But in the case of schools, whether endowed or not, which received grants from the Board under their secondary school regulations, the Board would not regard the absence of vaccination as a reasonable ground for the exclusion of a day pupil, though they would be unwilling to interfere with the discretion of the governors in the case of boarders.

Local Government (Scotland) Bill.—Mr. Cathcart Wason asked the Lord Advocate if he was aware that practically all the Scottish members supported the proposal to put Scottish Poor Law medical officers in the same position as regards right of appeal as their brethren in England and Ireland; and if the Government would afford facilities for the second reading to the Local Government (Scotland) Bill in order that the case might be duly considered in Committee. Mr. Ure replied that he was aware that the bill referred to received considerable support. Parish councils, however, were by no means unanimous in the matter, and without evidence of more general concurrence on their part the Government were not prepared to adopt the course proposed. Mr. Cathcart Wason then asked if the right hon. gentleman was aware that the Secretary for Scotland, in reply to a deputation a year and a half ago, promised that this matter should receive consideration when the Local Government (Scotland) Bill was before the House. Mr. Ure said he had given it consideration and found that the local authorities were not by any means in universal agreement on the subject.

Certification of Deaths (Scotland).—Mr. Weir called the attention of the Lord Advocate on Monday to the fact that during the years 1903-7 there were 2,915 uncertified deaths in Ross-shire and Inverness-shire and asked what action the Government intended to take to remedy this state of things. The Lord Advocate replied that no action can be taken without legislation, which was not at present in contemplation by the Government.

Consumptives from Canada.—Mr. Weir asked the President of the Board of Trade, having regard to the fact that under Canadian law emigrants from this country who developed consumption within two years after arrival in Canada were required to return, was he in a position to state what precautions had been taken by steamship companies, in vessels sailing from Canadian ports to the United Kingdom, to isolate consumptive passengers in such a way as to prevent other passengers running the risk of infection. Mr. Churchill replied that the steamship companies informed him that persons returning from Canada on account of consumption were carefully isolated during the voyage, and kept apart from the other passengers.

The Sale of Disinfectants.—Mr. Rees asked the President of the Local Government Board whether, in view of the promise made by him in June, 1907, and the statement of Professor Hewlett in the recent Milroy lectures, delivered before the Royal College of Physicians, to the effect that during the years 1905, 1906, and 1907, 28,000 gallons, 37,000 gallons, and 66,000 gallons of liquid were sold as disinfectant under the Privy Council Order of July 31st 1900, whereby grocers and oil and colourmen were prohibited from selling disinfectants containing more than 3 per cent. of carbolic acid, the result of which, as the leading authorities all agreed, was to place a premium on adulteration and inefficiency, he would now state what steps he contemplated taking to remedy this evil. Mr. Masterman, replying for the President, said, as he had stated in reply to a previous question, the Local Government Board was not empowered to fix standards of disinfectants, and it did not appear to him that he could usefully take action in the matter. He might add that there was little public advantage in the domestic use of disinfectants as deodorants. Where they were used to remove infection they were commonly employed under the advice of a medical officer of health or other medical man, who could be trusted to order disinfectants which were efficient.

The Metropolitan Ambulances Bill, to enable the London County Council to establish and maintain an ambulance service in London, was presented on Tuesday by Sir William Collins and supported by Colonel Lockwood, Sir Walter Foster, Sir William Bull, Mr. Dickinson, Mr. Corrie Grant, Mr. Steadman, Mr. Straus, Mr. T. W. Wilson, and Mr. Waterlow. The second reading was fixed for May 10th.

The Dogs (Exemption) Bill.—Last week Mr. Ellis Griffith presented a bill to exempt dogs from painful experiments. It is supported by Colonel Sandys, Sir F. Channing, Mr. Field, Mr. Weir, Mr. Tomkinson, Mr. MacNeill, Mr. Clement Edwards, Mr. Crooks, and Mr. Sloan. It was put down for second reading on Wednesday.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

THE PROVIDENT AND CHARITY ORGANIZATION SOCIETY.

IN the annual report of this society just published a list of its aims is given, and it appears that besides the administration of several charities which are in its hands, including an old age pension fund and the Convalescent Home at Southport, the principal aim of the society is to encourage co-operation between individuals and charitable agencies so as to prevent misapplication of relief and the evils of overlapping. It invites the co-operation of all who are interested in any kind of charitable aid, and has a staff of officers whose business it is to inquire into the previous history of individuals and families, the means by which they maintain themselves, their liabilities, whether they have made any attempt to provide for times of want, and how far friends or relatives have assisted or are willing to assist them. Associated with it is the Manchester and Salford Provident Dispensary Association. Among other agencies which employ the society to make inquiries on their behalf are the Manchester Royal Infirmary, the Salford Royal Hospital, the Northern Hospital, and Ancoats Hospital, St. Mary's Hospital, the Victoria Dental Hospital, and the Manchester Midwives Supervising Committee. The total number of cases investigated by the society during the last year was 64,351, of which the first four hospitals mentioned above furnished no less than 52,595. In making its returns a general wage limit is taken, and persons in receipt of more than this are reported as not fit cases for free hospital treatment. The scale is 14s. a week for single men or women, 21s. for married couples without children, and 1s. 6d. extra for each child. This scale is adopted for all the hospitals on the list, and, as far as applicable, by the Midwives Supervising Committee. The report gives some interesting details of the cases investigated for the Royal Infirmary, the Salford Royal Hospital, the Northern Hospital, and Ancoats Hospital, in-patients and out-patients being taken separately, as shown in the following table:

Analysis of Cases Investigated for the Four Hospitals.

Belonged to other towns ...	In-patients	82
	Out-patients	6,540
Could not be found	In-patients	86
	Out-patients	2,131
Deserving free treatment ...	In-patients	1,697
	Out-patients	39,461
Able to join provident dispensary	Out-patients	2,275
Able to pay a doctor	Out-patient	6
Able to make some payment	In-patients	317
Total number of cases received from the four hospitals		52,595

The most striking thing in these figures is that out of 50,413 out-patients, only 6 are returned as "able to pay a doctor," while 2,275 are returned as able to join a provident dispensary. The 6 cases able to pay a doctor are found all to come from the Salford Royal Hospital, which sent 9,808 cases for investigation. Of the remaining 40,605 out-patients, coming from the Manchester Infirmary and the Northern and Ancoats hospitals, not a single case is returned as able to pay a doctor. No one acquainted with these hospitals will accept this for one moment as properly representing the true state of affairs. It is evident that an extremely high wage standard must be taken in judging of ability to pay a doctor, and probably the majority of the 2,275 cases returned as able to join a provident dispensary ought to be regarded as able to pay a doctor. This figure would represent 5.46 per cent. of the total out-patients, but even this is no criterion of the amount of hospital abuse that goes on, as the following considerations will show.

Taking the out-patients only, which number 50,413, we find that no less than 6,540 came from other towns, and were not investigated at all. Presumably it would cost each of these a fair amount for travelling to and from the hospitals, and in a large proportion of cases the cost of travelling would have been sufficient to pay a local doctor. Again, no less than 2,131 gave a wrong address, or at any rate could not be found. Here again, probably, a large percentage were afraid of investigation. Further, as a rule, cases are only sent for investigation after their first attendance, and probably only those likely to require a long attendance are given to the investigators. That something of this sort must take place is seen by comparing the total number of out-patients at the hospitals with the number sent in for investigation. In 1907 the out-patients at the Royal Infirmary numbered over 43,000; last year it was about the same. But of these less than 25,000 were given to the the provident society for inquiry. It is difficult to believe that all the remaining 18,000 were beyond doubt suitable for free treatment without inquiry. Further, when the society has supplied to the hospitals with the results of its inquiries, its duties are finished. But it is quite certain that in very many cases the hospitals take absolutely no notice of the statements of the investigators. There may be some reason for this, for when a patient is found not to be suited for free treatment the investigators mark the hospital card with the letters "P.D." which unfortunately may stand for either "Private Doctor" or "Provident Dispensary." Most people, including the hospital authorities, take these letters to mean that the patient is able to join a provident dispensary, but no provident dispensary will accept a person who is ill at the time without an extra subscription which may be prohibitive at the time, and so little notice is taken of cards so marked and free treatment is continued as before.

Taking all these facts into account it is evident that the figures given by the society are no criterion of the amount of hospital abuse that takes place in Manchester and Salford. This may not be the fault of the society; its figures may be correct as far as they go. But if all the out-patients attending at the hospitals on any one occasion are taken into account, it would probably be more nearly correct to treble or even to quadruple the percentage, 5.46, which is supposed to represent the number of those not suited for free treatment.

Turning to the in-patients, 15.75 per cent. are reported as able to make some payment. Only 2,182 cases were given to the society for inquiry, and of these 168 were not followed up, as they either came from other towns or could not be found, while 317 were found to be able to make a payment. But it by no means follows that they are asked to do so, though some of the hospitals try to get something from them. Here again only a small proportion of the total in-patients were investigated. For instance, the Manchester Infirmary has about 5,000 in-patients a year, but only 945 were investigated, of whom 40 could not be found, and 165 were reported as able to make some payment. Thus the figure 15.75 per cent. is no criterion of the actual truth, though here again the society is not to blame. It may be noted that no in-patients were investigated for the Northern or Ancoats hospitals, though possibly some had been investigated as out-patients before being admitted as in-patients.

Of the cases sent to the society by the Midwives Supervising Committee no particulars are given, but from the annual report of the medical officer of health for the previous year, it is seen that out of 288 applications for payment by medical men for attending midwives' cases, 26 patients were found to have an income above the scale. The authorities refused to pay for these, leaving the doctors who did the work to get their fees as best they could.

Taking all things into consideration it is evident that the society is doing good work, but it is sorely hampered by the failure on the part of the hospitals to take full advantage of the facilities which it offers for preventing hospital abuse, and there is more than a suspicion that even the investigations which are made are not always utilized as they ought to be.

LIVERPOOL.

THE SLEEPING SICKNESS EXPEDITION.

AT a recent meeting of the African Trade Section of the Liverpool Chamber of Commerce, Dr. Allan Kinghorn, a member of the sleeping sickness expedition of the

Liverpool School of Tropical Medicine, gave an address upon the investigation of sleeping sickness. He said that tsetse flies had a very wide distribution over the whole of the territory with which the expedition had been dealing, and cattle diseases, due to various varieties of trypanosomes, and referable finally to the agency of these flies, were abundant everywhere. The absolute safety to life ensured by European administration, the opening of markets for the sale of local produce, and the demand for a constant and abundant supply of labour had resulted in an unprecedented movement amongst the native population; and as until very recently no checks had been imposed on this, many new foci of sleeping sickness had been established, and the price was now being paid. Most Governments were taking action, but the harm was done before the cause and method of spread of the disease were known. It was formerly thought that only the negro race was affected. The comparative safety of the white man was due to his clothes and the other conditions under which he lived. Wherever the *Glossina palpalis* existed in the presence of an infected person there existed the danger of the spread of human trypanosomiasis. Whilst this species of fly, known as the river fly, was capable of transmitting the disease, some doubt existed as to whether it was that fly only which could do so. He considered it safer to hold the view that other species of tsetse fly might transmit it. In order to check the spread of the disease the indiscriminate movement of the native population must be controlled. Should any district be found to be infected the natives should not be allowed to travel beyond its borders until it had been shown that they were not suffering from this disease. The *Glossina palpalis* required shade, and could be got rid of by making clearances along water courses; the clearing, however, must be thorough. To deal with sleeping sickness was a matter of international importance, and could only be accomplished by international co-operation.

WEST YORKSHIRE.

Bradford Anthrax Investigation Board.

At a meeting of this board on April 19th, Dr. Eurich, Bacteriologist to the Board, reported that since the last meeting in February two cases of anthrax had occurred. During that period he had examined 111 samples contributed by thirteen firms, a great majority of which were blood-stained, but in only one sample—of blood-stained Cape mohair—had he found anthrax spores.

The Notification of Births Act.

At the annual meeting of the Liversedge District Council, held last week, it was determined to adopt the Notification of Births Act, 1907, complaints having been made that the infantile birth-rate in the district was excessive. The rate for the township is 135.8 per 1,000, compared with 121 for England and Wales. Some strong protests were made against the adoption of the Act, but they were of no avail, as the majority of members were in its favour.

NEWCASTLE-UPON-TYNE.

Barrasford Consumption Sanatorium.

The annual report for the year 1908 shows that 113 patients have been treated at the Newcastle and Northumberland Sanatorium at Barrasford during the year. The sanatorium was opened in May, 1907, so that it is at present too early to judge of the continuance of the good results which are evident when the patients leave the institution. Even better results could, in the opinion of the medical staff, be obtained if the patients were able to make a longer stay in the sanatorium, but the charge of two guineas a week which the committee is obliged to make may have something to do with this. A limited number of patients can obtain admission to the Newcastle Corporation beds, and the workmen of Sir W. G. Armstrong, Whitworth, and Co. support five beds. The medical report shows that the institution is doing good work. From May, 1907, when the sanatorium was opened, until September, 1908, 90 patients—52 males and 38 females—were discharged, and the following table shows the general result in these cases:

Males.	Females.
22 are at work.	12 continue to improve.
2 ready to start work.	13 are *in statu quo*.
6 are *in statu quo*.	5 are not doing well.
6 are not doing well.	5 have not been heard from.
8 have not been heard from.	3 have died.
8 have died.	

During the year 1908 89 patients were admitted and 70 discharged; of these, the pulmonary condition was considered to be arrested in 12, much improvement in 29; in 20 there was some improvement, and in 10 none.

Ireland.

[From our Special Correspondents.]

Women's National Health Association.

Her Excellency the Countess of Aberdeen opened a tuberculosis exhibition in the Rotunda, Dublin, on behalf of the Women's National Health Association, last week. In the course of an address, Lady Aberdeen said the exhibition had visited about 100 places in Ireland, and last week it was opened in the Black Pitts District and Dolphin's Barn. She thanked the various medical men who had come to give demonstrations. In the evening Dr. Hope, Medical Officer of Health for Liverpool, gave a lecture at the Royal Dublin Society on "Public Health Work in Liverpool in Special Relation to Tuberculosis and Infantile Mortality." The chair was occupied by His Excellency the Lord Lieutenant. Dr. Hope said that in many respects the two cities had, independently of each other, been working on somewhat similar lines. The death-rate from phthisis in Liverpool had fallen from 1.9 in 1895 to 1.4 in 1907. In proof that improved dwellings produced good results, he stated that the mortality in former insanitary areas showed that the rate in a period of three years was 1.35 lower than the rate for the city taken as a whole—that is to say, was about half the rate which formerly existed amongst the same class of people in their old surroundings. No practical sanitarian would suggest that if, instead of demolishing insanitary dwellings, the money had been spent in private hospitals and sanatoriums for consumptives, the results would have been at all comparable. He then entered into detail as to the various methods followed in Liverpool in the treatment of tuberculosis, and the beneficial results which had been realized, and referred to the methods adopted in Liverpool for the diminution of infant mortality. He expressed his admiration of the methods followed in the Dublin Milk Dépôt. In Liverpool the milk dépôt cost the City about £2,000 a year, but the corporation did not grudge the money provided it could be shown that good was resulting, and that infant life was being saved. On the motion of Sir John Byers, seconded by Dr. Cox, a vote of thanks was passed to Dr. Hope.

The report presented to the second annual meeting of the association stated that there were now 172 branches. Thirty nurses had been appointed to as many branches which had collected funds for that purpose. Several branches had raised funds in order to obtain sanatorium treatment for patients. Cookery lessons formed part of the winter work, and demonstrations were given as to how cheap meals could be provided for consumptive patients. Prizes had been offered for well-kept cottages. A pasteurized milk dépôt had been established by the central association as an object lesson to demonstrate the saving of infant life which could be effected by providing pasteurized milk. The tuberculosis van, provided through the generosity of the Trustees of the Pembroke Charities Fund, had visited 103 places, where lectures were given to crowds of people. At the International Congress of 1908 held in Washington the first prize for effective work had been divided between this Association and the New York Association for the Prevention of Tuberculosis. The income for the year was £2,819 11s. 5d., and the expenditure £2,896 13s. 6d.

On the same evening Dr. R. W. Philip (Edinburgh) gave an address on the part to be played by the consumption

dispensary in the tuberculosis campaign. He said it was an error to suppose that the British Isles were pre-eminent as a tuberculosis centre. As a matter of fact, England and Scotland occupied the lowest place in the table of mortality from tuberculosis in the world, and Ireland, he had no doubt, would soon take its place beside the sister countries. Tuberculosis was much more common amongst school children below the age of 15 years than was generally supposed, and in support of this statement he mentioned, amongst other things, that out of 16,589 consecutive cases attending the dispensary in Edinburgh, he found that no fewer than 1,917 cases occurred in children below 15 years of age—that was to say, 11.5 of the whole. Much time and energy had been wasted on ill-considered and partial measures for the eradication of the disease. The factors in a well-organized and co-ordinated scheme were—first, a tuberculosis dispensary; secondly, notification; thirdly, a hospital for advanced and dying patients; fourthly, a sanatorium for the cure of early cases; and fifthly, a work colony for the further treatment of selected patients to whom a return to work meant a relapse. He was happy to say that in Edinburgh each one of these factors was at present in operation. He then dealt in detail with the work of the consumption dispensary, which was of first importance, and which, if properly worked, should be the centre of antituberculosis operations. The significance and strength of the dispensary lay in its close relationship to the other factors in the scheme. He was satisfied that the key of success in the campaign was to be found in the co-ordination of effort along those different lines.

Dr. Stafford, in proposing a vote of thanks to the lecturer, said that the county councils would have power after July 1st next, under the Tuberculosis (Ireland) Act, to establish consumption dispensaries, and carry out the whole programme indicated by Dr. Philip.

Sir John W. Moore, M.D., Chairman of the Dublin Hospitals Tuberculosis Committee, seconded the resolution, which was supported by Professor McWeeney.

Sir Charles Cameron occupied the second chair, and a vote of thanks to His Excellency the Lord Lieutenant for presiding was passed, on the motion of Mr. Lentaigne, President of the Royal College of Surgeons, seconded by Dr. Hearn, Armagh.

PUBLIC HEALTH IN BELFAST.

The Belfast Health Authorities and the Local Government Board of Ireland do not seem to be able to agree. Some few weeks ago public money was being spent in taking counsel's advice as to the liability of the City Council for part of the expenses of the late Belfast Health Commission; the lawyers of the City Council gave an opinion which differed from that held by the Local Government Board. At the meeting of the Public Health Committee on April 22nd a letter was read from the Local Government Board refusing to sanction the proposed increase of the salary of the medical officer of health of Belfast from £600 to £800 by four annual increments of £50, and saying that in 1906 the Board urged the Corporation to offer a salary which would attract candidates with high qualifications and extensive practical experience in the sanitary administration of a large city; that after full deliberation the Corporation offered only £600; that it was accepted by the present holder of the office, and that the Board, having regard to its usual practice of declining to consider proposals to increase salaries until five years have elapsed after appointment, on the ground that the fixing of a low initial salary would tend to limit competition and discourage eligible candidates, feels unable to concur in the present proposal of the Corporation. A strong resolution of protest was passed by the Committee.

EPIDEMIC OF SCARLET FEVER IN LURGAN.

A serious epidemic of scarlet fever broke out in Lurgan about April 10th. In a week it had assumed considerable dimensions, and soon some 50 cases were in hospital, and the empty small-pox wards were called into requisition. In addition to the fever there were a large number of septic throats, some of which proved fatal. The medical officer of health (Dr. Agnew) thought the spread of the disease due largely to giving out work from one or two factories, but many cases have followed the distribution of milk from one dairy. The utmost efforts have been made to cope with the trouble.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

VITAL STATISTICS OF SCOTLAND.

THE fifty-fourth annual report of the Registrar-Genera for Scotland, covering the year 1908, has just been issued. The more outstanding facts of the vital statistics of Scotland for the year are a low birth-rate, a low death-rate, and a low marriage-rate.

The forty-fourth annual report on vaccination is of special interest in that it shows the effect of the recent Vaccination Act, the Act which permits the conscientious objection of the parents to be a valid excuse for the non-vaccination of children. The result of the Act is found to be that a decidedly larger number of children escaped vaccination than was previously the case.

The population of Scotland at the middle of 1908 is estimated to have been 2,826,587 males and 2,538,258 females. The total population is estimated to have been 50,524 more at the middle of 1908 than at the middle of 1907, the male population being estimated to have been 26,351 more, and the female population 24,173 more. These estimated increases of population are based on the rates of increase observed in the last intercensal period, which rates are assumed to have continued since the last census. The natural increase of the population of Scotland, the excess of births over deaths from the middle of 1907 to the middle of 1908 amounts to 52,875. The difference between that figure and the estimated increase may be taken as the indication of the probable effect of immigration and emigration. The natural increase of the male population between the middle of 1907 and the middle of 1908 was 28,129, and of the female population was 24,746.

The total number of births registered in Scotland during the year 1908 was 131,337, which is 2,548 more than the number of births registered during the previous year, but is 329 less than the average number of births registered annually during the previous five years, and 242 less than the average number of births registered during the previous ten years. The birth-rate of the year is 27.21 per 1,000, a rate which is 0.24 above that of the previous year, but is 0.95 below the mean of the rates of the previous five years, and 1.69 below the mean of the birth-rate of the previous ten years.

The total number of deaths registered in Scotland during 1908 was 77,849, a number which is 572 more than that of the deaths registered in the previous year, 1,555 more than the average number registered annually during the previous five years, but 136 less than the average number registered annually during the previous ten years. Compared with the deaths registered in 1907, those registered in the principal towns show a decrease of 618, and those in the insular rural districts a diminution of 92; but those registered in the small town districts show an increase of 774; those in the large town districts an increase of 298; and those in the mainland rural districts an increase of 210. The death-rate for the year is 16.13, a rate which is 0.05 less than that of 1907; 0.18 less than the mean of the death-rates for the previous five years; and 1.01 less than the mean of the death-rates for the previous ten years. Marriages registered in Scotland during 1908 numbered 31,583, which is 167 less than those registered in the previous year. The marriage-rate for the year was 6.54 per 1,000 of the estimated population. It is the lowest rate of any year since 1888.

The combined statistics of eight of the principal towns show that in them the birth-rate was lower than that of the previous year, which was the lowest previously recorded for those towns; the death-rate being for the first time less than 17 per 1,000; and the marriage-rate being the same as those of 1886 and 1887, which were the lowest previously recorded. The death-rates of the year in the towns of Edinburgh, Aberdeen, Paisley, and Greenock are found to be the lowest recorded.

The number of children successfully vaccinated during 1908 was 98,642, amounting to 75.14 per cent. of the total children, and to 82.98 of the children alive at the time of vaccination. The former percentage is 7.59 lower than that of 1907, and 8.91 lower than the mean percentage of the previous ten years. The latter percentage is 8.47 lower than the rate of the previous year, and 10.31 lower than the mean of the percentage of the previous ten years. Both the percentages are the smallest yet recorded.

UNIVERSITY OF EDINBURGH: HISTORY OF MEDICINE.

Dr. Comrie's fifth lecture was devoted to an examination of the works of Hippocrates (born 460 B.C., died about 350 B.C.). The "Corpus Hippocraticum," he said, was composed of sixty distinct parts, of which sixteen were authentic works; some were possibly written in the School of Cnidos. Galen made many commentaries upon it. An essay in the course of the writings was called 'Ancient Medicine"; another refers to "Airs, Waters, and Places," and dealt specially with the climate of Libya. In the course of the latter Great Britain was called the tin islands, about which Hippocrates stated he knew nothing. The need for very accurate observations and descriptions was insisted upon in connexion with the medical arts. The classical quotation concerning the "facies Hippocratica" as a sign of death was adduced as a well-known example to be copied. Empyema following pleurisy was to be diagnosed by the indications of varying pain in the chest, persistent purulent sanguineous expectoration and fever, not marked, but greater in the evening than in the forenoon. The therapeutics of pleurisy comprised the use of hot barley water following thorough evacuation of the bowels; limited doses of oxymel of squills (an Egyptian remedy), with honey and hot water as a beverage; local applications of hot water on sponge, in a bottle or in vessel of bronze or earthenware, to soothe pain and induce comfort. Wine seemed often to have been prescribed. Purgatives consisted of euphorbia or hellebore with anise, cumin, or asafoetida. In pneumonia hot baths were recommended, and soft sponges used to lessen risk of injuring skin surfaces. The patient had to rest and have everything done for him. The notes of methods of treating pneumonia and case-taking were of value in indicating how accurately observations were made.

"Epidemics" referred possibly to an outbreak of Malta fever occurring after the Peloponnesian wars.

The "Aphorisms" had been translated into many languages, and commented upon by many writers and speakers—for example, Life is short and art is long. Experience was fallacious and judgement was difficult. Symptoms rather than morbid anatomy were dwelt upon in diagnosis, and in treatment great objection was made to so-called fattening processes. Bronchitis, pneumonia, coryza, and pains in the chest were diseases of winter. Tetanus was common in Greece, and had two distinct varieties—a very acute and fatal, and subacute and non-fatal variety. Epilepsy beginning before the twenty-fifth year of age was curable. Phthisis was said to be more common in the young than in the old—a statement which might be compared with the modern dictum which was that phthisis killed at about the age of 40 years. Eunuchs did not suffer from gout or baldness.

All starting the study of medicine were supposed to subscribe to the "Oath of Hippocrates," which was read in full; its high level of idealism was carefully insisted on. Reference was made to the work called the "Law," or a "Standard of Medicine" (Hipp., *De Judicat.*). Epilepsy, fractures of skull and of forearm (radius) were described; treatment was indicated and comparisons were drawn between former methods and the modern use of massage and bandages.

A lantern demonstration included photographic representations of a bust of Hippocrates, many ancient surgical instruments and splints, and ladder used in treating disease of the spine with deformity, and a flat bed made of boards capable of being moved in two directions parallel to fixed supports running at right angles to the boards, trephining instruments worked with bow and string, or Archimedian screw, scalpels, dissector, and aneurysm needle. Authorities for statements made were indicated, and a copy of a dissector depicted, which was made of brass and steel, was handed round for inspection.

PHYSIQUE OF GLASGOW CHILDREN.

At the last ordinary meeting of the Royal Philosophical Society, Dr. A. S. Macgregor contributed an interesting paper on the physique of children admitted into Belvedere Hospital in the year 1907–8. The inquiry dealt chiefly with children under the school age, and investigated certain aspects of the relationship between the physical condition and the standard of the home life. For this purpose the number of rooms in the house was chosen as a convenient economic standard. Each social class has its own standard of physique, and the difference between the standards for the poor and better-off children was distinct at all ages, but was particularly marked during the period prior to school life. The influence of poor conditions of life was most noticeable between the ages of 2 and 4 years, and there seemed to be some recovering of physique about the period when school life begins. The chief criterion of physique adopted was the height measurement, as the weight tended to diminish during the incubation periods, especially in the younger children. Using the increase in height and weight during the residence of the children in hospital as a test of the capacity to respond to better surroundings, he found that the slum children were quite amenable to improvement. The prevalence of rickets was emphasized. It was found in 31 per cent. of male and in 26 per cent. of female children. It occurred almost as often among the dwellers in the top flats as in those on the ground floor, but the incidence markedly diminished as the population of rooms in the house increased. It was also noted that rickets seemed to be twice as common among Glasgow children as among those from other parts of the country, and seemed to be more common among the children of mothers born in Glasgow than of mothers bred out of Glasgow.

EDINBURGH POST-GRADUATE VACATION COURSE IN MEDICINE.

The syllabus for the Edinburgh post-graduate vacation course in medicine has been issued. The course will extend from Monday, August 30th, to Saturday, September 25th, and will comprise: (1) A general course; (2) a surgical course; (3) special courses; (4) each day a special lecture on some subject of general medical or surgical interest. The University Union will be available to graduates of any university during the month of September for a fee of 5s. During the past three years some 70 graduates have, on the average, attended the post-graduate courses. In order to prevent disappointment, graduates who wish to enter for the surgical course or any of the limited classes are requested to study the syllabus carefully, and to fill up the entry form at an early date to the Secretary. Places will be reserved only if applications are accompanied by the fees for the classes in question. The classes are open to women. Communications should be addressed to the Secretary, the Faculty Office, University New Buildings, Edinburgh.

ROYAL INFIRMARY, GLASGOW.

After a keen contest, the post of Pathologist to the Royal Infirmary, vacant by the resignation of Dr. Galt, has been filled by the appointment of Dr. J. H. Teacher, M.A., M.D., who for some time has acted as senior assistant to Professor Muir. Since 1905 he has been Assistant Pathologist to the Western Infirmary and to the Royal Infirmary for Sick Children, and for the past two years has held the position of Lecturer in Pathological Histology at the University.

CEREBRO-SPINAL MENINGITIS IN SCOTLAND.

The Registrar-General for Scotland reports that in eight of the principal towns of Scotland, during the month of March, deaths from cerebro-spinal meningitis numbered 12. This was 4 more than in February, but 15 fewer than in March, 1908. Of these 12 deaths, 9 were registered in Glasgow, 2 in Edinburgh, and 1 in Aberdeen.

NURSES' REGISTRATION.

The Central Council of the British Medical Association, at its meeting on April 28th, adopted resolutions expressing the opinion that it is desirable that the general principle of separate registration of nurses in Scotland, as embodied in the bill introduced into the House of Commons by Mr. Cleland to establish and make regulations for a register of nurses in Scotland, should be supported; and, further, that any bill which does not provide for reciprocity of registration within the United Kingdom should be opposed.

EDINBURGH INDIAN MEDICAL SERVICE DINNER.

This annual dinner will take place on Friday, May 28th, in the Caledonian United Service Club, Shandwick Place, Edinburgh, at 7.30 p.m. Tickets, 8s. each (exclusive), may be obtained from Colonel James Arnott, 8, Rothesay Place, Edinburgh. Sir Alexander Christison, Bart., will preside.

SCOTTISH DENTAL ASSOCIATION.

The annual meeting of the Scottish Branch of the British Dental Association was held in the Dental Hospital, Edinburgh, on April 24th, Mr. W. Taylor, L.D.S., Glasgow, in the chair. The following office bearers were elected for the ensuing session: President, J. Douglas Logan, L.D.S.; Vice-President, R. Keith Common, L.D.S.; Treasurer, D. Baillie Wilson, L.D.S.; Honorary Secretary, L. C. Broughton-Head, M.B., L.D.S.; new Members of Council J. P. Crichton, L.D.S., A. K. Finlayson, L.D.S., C. E. Page, L.R.C.P.and S., L.D.S., W. Taylor, L.D.S. The annual dinner was held in the Caledonian Station Hotel the same evening, under the chairmanship of Mr. J. Douglas Logan, L.D.S., Edinburgh. The toast of "The Royal Colleges of Physicians and Surgeons of Edinburgh and of the Faculty of Physicians and Surgeons of Glasgow" was proposed by Mr. W. T. Finlayson, L.R.C.P.and S., L.D.S., Edinburgh, and responded to by the Presidents of the respective bodies. "The British Dental Association" was proposed by Dr. M'Kenzie Johnston, and replied to by the President of the Branch, Mr. J. Douglas Logan.

British East Africa.

IT is not often that we can accuse our Government departments—the Colonial Office, the War Office, or the Treasury, on which both are largely dependent—of erring on the side of generosity or liberality towards their employés; but for rank cheeseparing we can find nothing to equal a Colonial Office regulation recently promulgated which ruled that officials serving in British East Africa were to be limited to ten days at one time, and to twenty-eight days in the year on the sick list from illness, after which periods such officials were to be placed on half pay. We have it on very good authority that when the regulation was ordered to be incorporated in the Provincial Gazettes in British East Africa, the commissioner of at least one province (owing to its notorious unhealthiness) protested against the regulation, if he did not absolutely refuse to promulgate it locally. The regulation which was considered prejudicial to the interests of the officials employed was made the subject of a question in Parliament by the late Mr. Arnold-Forster, who asked the Colonial Secretary whether such a regulation had been issued and incorporated in the Provincial Orders throughout British East Africa. The reply by the Colonial Office was that such a regulation had recently been issued; but the Secretary of State has approved of its withdrawal, and in future a maximum of forty-five (45) days' sick leave per annum would be allowed.

Two points in regard to this regulation may be discussed: (1) Does the modified order go far enough—that is, is it fair or liberal? and (2) What can have been, or is, the reason for the action of the Colonial Office in this matter of sick list periods?

An official's illness may be due to his own negligence, stupidity, or excess, and not to climatic conditions. If the sickness be due to any of these conditions, cannot the Medical Board or the medical certifying officer who draws up the case be trusted to state the facts? As a rule—at all events in the War Office—both the authorized Medical Board and the medical officer drawing up the statement of an officer's case are called on to reply to specific questions dealing with causation; in the former case the Medical Board has to state whether the disease or disability is caused "*in and by* the service," while if the medical officer draws up the case he has to state what the "*habits*" (temperate or intemperate) of the officer are. It is thought that the recent order will make officials refrain from reporting sick, and thus increase the percentage of invaliding. As a matter of fact, officials are stopped 5s. a day every day they are in hospital, and this alone has tended to prevent their reporting sick. This tendency will become greater now that the recent regulation has come into force; though, let it be noted, officials in Northern Nigeria are deprived of the allowance of 5s. a day which was granted in their original appointments until officers were provided with brick houses. They paid 5s. a day when in hospital, and were provided with everything. The allowance of 5s. has been reduced yearly by 1s, and will cease altogether next year; but officers will have to pay 5s. a day in hospital, and in stations where there is no hospital they have to pay for medical comforts. Most of the officials are living in mud houses. There should not be, we think, any charge for hospital treatment or for hospital comforts in non-hospital stations. The conditions of life in bush stations are much as they were eight years ago, and the climate has not altered.

Some facts with regard to vital statistics, hospitals, climate, public health, and sanitation in the East African Protectorate may not be out of place here. We find from the last report, 1906–7, presented to both Houses of Parliament, June, 1908, that a census had not only never been undertaken, but under present conditions would be quite impossible. An approximate estimate gives the population of the Protectorate at 4,000,000. Despite the mortality from sleeping sickness in the lake shore and an abnormally high infant mortality, the native population should tend to increase as internal peace is secured. The white population is roughly estimated at 1,600, including Government officials; it includes individuals to whom land, industrial, and mining concessions have been granted locally.

In 1906 the registration of births and deaths of Europeans, Americans, and Indians throughout the Protectorate, and of all deaths, including natives in township areas, became compulsory. The registration of native births is optional, so that the returns of births and deaths cannot be compared with a view to ascertaining the increase or decrease of population. Moreover, the native deaths registered form only a very small proportion of the total population. The returns, then, for 1906–7 show a total of births 190, deaths 1,347. It is unnecessary to give the figures for each province, but it may be stated that the province of Seyidie contributes 139 births and 770 deaths to the aggregate numbers.

There are European Government hospitals at Mombasa and Nairobi; in the former 23 patients were admitted, of whom 15 were cured, 5 relieved, and 3 died—that is, 13 per cent.; in the latter, of 52 admissions 26 were cured, 19 relieved, and 6 died (11.5 per cent). There is no lunatic asylum in the Protectorate, but provision has been made for the erection of an asylum at Nairobi; natives are confined in the gaol and Europeans placed under medical supervision and sent home as soon as possible.

The description of the climate may be given by divisions of the Protectorate into three principal zones; but even thus there are considerable ranges in temperature and rainfall which have strong influences on health.

The coast region gives a temperature not excessive, but owing to the moisture of the atmosphere the heat is trying to Europeans. In the coast towns, however, during the monsoons a cool breeze blows constantly, particularly between May and November, when the south-west monsoon is prevalent. The hottest season is in January, February, and March; but the nights are generally fairly cool, though during the lull between the monsoons they are apt to be very oppressive. Most rain falls during April, May, June, and November. The climate of the coast stations for Europeans is apt after long residence to cause enervation, but on the whole is not unhealthy. Malaria and other tropical illnesses are not frequent. Inland the heat, being untempered by sea breezes, is less bearable.

The highlands of East Africa consist of ridges and plateaus ranging from 4,000 to 9,000 ft. high, one peak (Mount Kenya) reaching 18,000 ft. The climate here is generally speaking healthy. The sun so near the equator is powerful during the midday hours, but the air is brisk and invigorating and the nights cool, so that Europeans can exert themselves to an extent impossible at the coast. As this part of the country is considered suitable for colonization many settlers have made their homes in it. Children who have been born and brought up in it have a healthy appearance. The one drawback is the unduly great daily range of temperature and a prevalence of strong winds.

The third zone is the district round Lake Victoria. The shores of the lake are comparatively low-lying, and the heat consequently approaches and even exceeds that of the coast. Violent storms are frequent, and the climate is less agreeable than in any other part of the Protectorate.

Malaria is common, and, if not carefully treated, leads not infrequently to blackwater fever. Mumias and Kisumu have distinctly bad records in this respect, though some improvement in the accommodation and sanitary conditions of the latter station has rendered it less unhealthy. The general sanitary condition of the Protectorate falls short of modern ideas. Some improvement has been made at the Government stations as regards the control of water supply, clearing bush, etc., but progress is slow. The water supply from the lake (Victoria Nyanza) is very unsatisfactory, and has been the cause of a large increase in the number of deaths from dysentery. Steps have been taken to improve the supply by the erection of water tanks. Night soil at Nairobi is buried in trenches situated at some distance from the town. Drainage is insufficient. Kisumu has a similar system of conservancy to that of Nairobi. The public health has on the whole been good, though there was a marked increase in the prevalence of malarial and blackwater fever in the districts near Lake Victoria corresponding with an unprecedented rise of the lake level. Only one European official died during the year of the report, and two were invalided. The death was due to blackwater fever. The total mortality among the white population amounted to 13, or about 6 per 1,000. Sleeping sickness claims a large number of victims. Plague broke out at Nairobi during the year of the report, causing 26 deaths out of 31 cases. At Kisumu there was a slight epidemic. Three cases of enteric fever occurred at Nairobi, of which 2 were fatal. This proves the existence of the disease in the Protectorate; no authentic cases had previously been known. The most prevalent diseases (as in former years) were those of the respiratory organs, especially pneumonia and pleurisy, and of the digestive system, which showed a considerable increase over 1905–6. It must be noted that these remarks apply to cases dealt with in hospitals, and concern only a small proportion of the total population.

Special Correspondence.

BERLIN.

Discussion on Anaesthetics at the German Surgical Society.—The Care of Crippled Children.—The Board of Insurance and Tuberculosis in Workmen's Homes.

The thirty-eighth annual meeting of the German Surgical Society, which took place in Berlin from April 14th to 17th, under the presidency of Professor Kümmel (Breslau), occupied itself with an immense number of subjects, for the most part highly specialized. One entire sitting, however, was given up to Narcosis, and the advantages and disadvantages of modern methods as compared with chloroform and ether. Neuber (Kiel) gave the result of the inquiry sheet sent to all German surgical specialists. Out of a total of 71,000 narcoses, 21 deaths were recorded, or 1 in 3,000. The number of cases in which chloroform was the anaesthetic used had gone down from 75 per cent. of all administrations to about 25 per cent. The outcome of his own experience, said Neuber, pointed to scopomorphine and ether as the least dangerous of anaesthetics. Bier (Berlin) pleaded for spinal anaesthesia in cases in which general narcosis might be risky. His favourite local anaesthetic was novocaine-adrenaline. For short operations in cases in which local anaesthesia was out of the question, Sudeck (Hamburg) recommended ether combined with morphine. Rehn (Frankfurt) discussed the deleterious influence on the spinal ganglion cells and medullary fibres of the anaesthetics injected into the spinal canal. Kader (Krakau) had found spinal analgesia safe and successful if carried out with a full dose of tropacocaine. Erhardt (Königsberg) recommended a mixture of gum (arabinic acid) as favouring slower absorption of the anaesthetic by the medullary sac. Koehler (Berlin) was strongly opposed to the introduction of spinal anaesthesia into field surgery.

Much attention has been given of late to questions connected with the care and education of needy child cripples in Germany. Though private initiative has been active for many years, and though the different Federal States have made a certain amount of provision for these little sufferers by establishing cripples' homes, policlinics, etc., these measures have not been nearly far-reaching enough, and fully organized and general action is urgently necessary if the question is to be dealt with thoroughly. Accordingly, after the usual preparatory steps, an influential German Union for the Care of Cripples has been formed. It numbers among its members Ministerial-director Foerster and Geheimer Medicinalrath Dietrich (both of the Prussian Cultus Ministry), delegates from the Bavarian and other Federal State Ministries; orthopaedic surgeons of note, mayors, town councillors, clergymen, heads of schools, and some well-known philanthropists—forty-eight persons in all. The first meeting was held in the large hall of the Prussian Cultus Ministry on April 14th, and was attended by many of the German orthopaedic surgeons who had come to Berlin for the surgical congress. Broad general lines of action were arranged, special stress being laid on prophylactic measures. The work of the meeting was, of course, mainly preparatory.

New measures for the protection of working men and women against infection from tuberculous comrades have just been started by the Berlin Branch of the National Board of Insurance. In future all the Berlin sick clubs affiliated to the Board will report to it their tuberculous cases, and the homes will thereupon be visited by special medical officers. On their recommendation the homes will be disinfected or thoroughly cleansed, or rearranged in as hygienic a manner as circumstances permit. If the patient cannot afford the expense of a separate bed, one will be provided; a separate room even will be rented for the patient where this seems of vital importance. The uninsured members of the family, too, will be examined medically, and if found tuberculous will be put in communication with the city bureaux for the care of the needy tuberculous population. Onerous and expensive as these measures must necessarily be, they are primarily designed, and no doubt in the end will prove, to effect a considerable saving of money to the National Board of Insurance. No fitter illustration could be given of the great truth that national health means national prosperity.

Correspondence.

TETANUS OCCURRING AFTER SURGICAL OPERATIONS.

Sir,—I am able to add three cases to those recorded by Mr. W. G. Richardson in the Journal of April 17th last.

Case I.

A woman, aged 45, on whom I performed subtotal hysterectomy for fibroid growths on April 12th, 1908. The wound healed by first intention, and all went well till April 29th, when stiffness of the muscles of the jaw and throat, with rise of temperature occurred. Generalized spasms were absent, but local stiffness and spasm persisted, with inability to swallow and pyrexia, up to 102° F. The patient rapidly became weaker, and died on the fifth day of the illness. No *post-mortem* examination was obtained, and the wound having been completely healed, there was no discharge available for bacteriological examination.

Case II.

A man of strong physique, a tram driver, was admitted into the South Devon and East Cornwall Hospital on April 21st, 1908, with a double bubonocele of five months' duration, under the care of Mr. Whipple, to whom I was at the time assistant surgeon. I performed radical cure on April 25th, and all went well till 2 p.m. on April 30th, when the patient complained of difficulty in opening his mouth, and pain in the back of the neck. The symptoms increased rapidly in severity during the afternoon and evening, and at 12.45 a.m. 20 c.cm. of tetanus antitoxin was administered hypodermically. The temperature was then 99° F., and pulse 112. No improvement followed, and the patient died in a spasm at 8 a.m. on April 31st. The wounds had healed almost completely.

Case III.

A shipwright, aged 24, of healthy appearance, was admitted to the South Devon and East Cornwall Hospital on April 21st, 1908, under the care of Mr. Whipple, for a left inguinal bubonocele of two years' duration. On April 28th I performed radical cure. The wound suppurated but was completely healed by May 10th, the temperature never rising above normal. On May 16th the patient complained of inability to open his mouth, and there was stiffness of the jaw and neck muscles. The disease developed fully and ran a protracted course, the temperature rising to 103° and 104°F. for twenty-three days.

It then fell gradually, and was normal on the twenty-sixth day of the disease. The patient eventually recovered completely. Chloral and bromide mixture and serum injections were frequently used.

These three cases are very suggestive. In all both myself and my assistants wore boiled rubber gloves, and observed all other antiseptic precautions. In two of them union of the wounds occurred. At the time I suspected the catgut, which was in each case obtained from the same source, and prepared in the hospital by the same method—that known as the iodine spirit. On referring to the clinical pathologist's report of the examinations of catgut, I find that there is no record of bacteriological examination of catgut between March 14th and May 22nd, 1908.

In Case II (which died) cultures were taken from the wounds in the groins *post mortem*, and the result is noted as follows:

Culture from right wound shows growth of shortish thick bacillus, from left shows staphylococci. No tetanus bacilli seen.

I am much indebted to Mr. Richardson for his interesting paper.—I am, etc.,

H. W. WEBBER,
Surgeon to the South Devon Hospital.

Plymouth, April 25th.

ANAPHYLAXIS.

SIR,—Discussing the term "anaphylaxis" in his interesting letter published in the JOURNAL of April 24th, p. 1037, Dr. W. Calwell finds a difficulty in the fact that repeated injections of antidiphtherial serum lead to serum anaphylaxis, or increased susceptibility to serum, but do not at the same time induce diphtheria anaphylaxis, or increased susceptibility to diphtheria.

Serum anaphylaxis results from repeated injections of an antigen, or antibody-producing substance, which is present in normal and antidiphtherial horse serum alike. The other active agent in antidiphtherial serum is diphtheria antitoxin, which does not cause diphtheria anaphylaxis. In order to produce diphtheria anaphylaxis it is necessary to give repeated doses of diphtheria toxin. This was done, for example, by von Behring and Kitashima; an animal treated by these observers died as the result of a series of injections of diphtheria toxin, amounting in sum to $\frac{1}{100}$ of the minimum lethal dose.

The whole problem is somewhat complicated by the circumstance that toxin anaphylaxis is induced by material which is poisonous at the moment of injection, whereas serum anaphylaxis is elicited by substances which are bland when first introduced into the system. Doses of toxin act speedily; but horse serum when first injected into the human subject takes effect, as a rule, after the lapse of a latent period. The principle, however, is similar under both conditions. Briefly, both serum anaphylaxis and diphtheria anaphylaxis are produced by antigens, serum antigen in one case, diphtheria antigen, or toxin, in the other. Serum antigen and diphtheria toxin are substances of a different order from diphtheria antitoxin, which is an antibody. It is not, therefore, to be expected that antidiphtherial serum, which contains serum antigen and diphtheria antitoxin, should act as if it contained serum antigen and diphtheria toxin—in other words, should cause at the same time serum anaphylaxis and anaphylaxis to diphtheria.

The term "anaphylaxis" is in common use on the Continent. The word *Ueberempfindlichkeit* is also employed by von Pirquet and Schick, Otto and others. Writing in this country I have used the word "supersensitation" to denote the condition under notice, and this expression has also been adopted by Dr. E. W. Goodall. It is preferable to "hyperimmunization," a word which neither represents the facts of the case nor conforms to the canons of etymological purity.—I am, etc.,

J. R. CURRIE.

Chester, April 26th.

COAGULATION TIME OF THE BLOOD.

SIR,—Dr. Addis's observations in the BRITISH MEDICAL JOURNAL of April 24th, p. 997, on this subject have been so numerous, and are so uniform in their results, that it is difficult to withhold assent from his conclusion that calcium and citric acid respectively have no effect upon the coagulation time, but the estimation of this factor is so extremely difficult that I venture to say a word of caution before the results are accepted as final. Some months ago I suggested in your columns a method of taking coagulation time, which is very simple, and appeared to be accurate. It did not include precautions against variations of temperature, which Dr. Addis shows to be very important, but this defect would not vitiate comparisons of times obtained at a single sitting. I have found that different portions of the same drop of blood may vary as much as 25 per cent. in coagulation time, and Dr. Addis has found some difference, for he warns us to reject the part last drawn, because it coagulates sooner than that which first appears. This does not agree with my results. I find that coagulation may begin in the part last drawn, or in the part first drawn, or in any intermediate part, and that adjacent parts do not by any means follow one another in order. Dr. Addis finds a difference of 33 per cent. in coagulation time among 150 trials on different days. I have found a difference of 25 per cent. in different parts of the same drop, a difference of 40 per cent. in different drops taken within half an hour of each other, and a difference of 50 per cent. in drops taken before, and half an hour after, a meal. Dr. Addis does not record the relation of his observations to meal times, but he is such a careful observer that we may take it for granted that this was considered. I do not wish to pit my method against his. It is quite possible that his is the more accurate—certain that it is more accurate in respect of observations taken at different temperatures; but the normal margin of error is so wide, even on his own showing by his own method, that one would expect a wider variation in his results, which are quite remarkably uniform. If they are confirmed they are of great importance, but they are scarcely yet conclusive. I should say that the results that I have herein recorded are founded on some hundreds of observations.—I am, etc.,

CHARLES MERCIER.

London, April 26th.

HUNGER PAIN AND DUODENAL ULCER.

SIR,—The "hunger pain" controversy interests me "too" much. I have "hunger pain," and am suffering from operative nightmare. At the same time, if I am to be promised relief from what apparently is duodenal ulcer, I shall gladly lay me down to be relieved by gastro-enterostomy. But there are one or two points that may interest your controversialists. Let me therefore be personal. I have suffered from "hunger pain" since I was 16 years of age; at least, the gnawing pain of then and that of to-day are indistinguishable. A drink of water, hot milk, or an apple or biscuit immediately relieve the pain. Sodium bicarbonate has an equally good effect. The tenderness is appreciable below the ensiform cartilage and to the right of the rectus muscles. I never have had sickness nor melaena. Pain ensues three and four hours after food. Tea in excess is certain to cause pain. After freedom from pain for a few hours, a cigarette (I inhale) will at once call the pain into being. When I am troubled with this "hunger pain" my sleep is seriously broken, and between 1 and 3 a.m. I am compelled to take soda and water. This stills me to sleep at once. I now and again swallow $\frac{1}{6}$ grain of morphine, but I hate the stuff. It acts like magic, and if I take it two days in succession the pain vanishes, and I have freedom for perhaps weeks. To look at me, I am the picture of health. I play golf, cricket, and love fresh air. I eschew meat and subsist on the sloppiest of diet. Yet this ogre persists in reminding me that it is there about my pylorus.

If I have a few days of hyperacidity I know it is the danger signal of "hunger pain." If I go from home and accept food that I would never eat at home I may be attacked by biliousness. I become languid, my eyes become muddy, and in a few days on comes the "hunger pain." Clayey stools add to the list of my peculiar summary of symptoms. I am a busy man, and inclined to light-heartedness, but it takes the "stuffing" out of one to be tormented as I am. A friend of mine has recently submitted to the "knife"; he marvels at my patience since he feels a new man.—I am, etc.,

PYLORUS.

April 25th.

RESPIRATION AND FATIGUE.

SIR,—Dr. Leonard Hill, in his interesting letter on "arterial blood pressure before and after muscular exer-

tion," which appeared in the British Medical Journal (page 927), states that "the fatigue which follows an athletic feat seems to be mainly cardiac in origin, and it is due to want of oxygen."

Now, if the fatigue is due to want of oxygen—and Dr. Hill's many interesting experiments with that agent clearly prove this—inasmuch as it is through the lungs that the blood obtains oxygen, and as it is also by the aid of the respiratory movements that the normal endocardial pressure is maintained, a not unimportant factor in the adequate functioning of the heart, surely it is putting the cart before the horse to state that "the fatigue which follows an athletic feat seems to be mainly cardiac in origin."

That the acceleration of the heart-beat during exercise is not, as is pretty generally supposed, the primary cause of the distress, is proved, it seems to me, by the fact that after exercise, when distress is over and the respiratory act is performed rhythmically and easily, the pulse rate is still much in excess of the normal, and remains above the average for some time. So it is not unreasonable to suppose that the quickening of the circulation is an effort of Nature to aid in the oxidation and elimination of toxic products formed during exercise. In short, it is a protective measure. The process of oxidation would also account for the rise of temperature that is not infrequently associated with exercise.

The primary cause of distress following muscular exertion is due, I take it, to disorderly respiratory movements, which destroy the regularity of respiratory exchange; and the phenomenon of "second wind" bears out this view. The distress and more or less irregular, quick, shallow movements of the whole chest, which were before its advent a somewhat prominent feature, now give place to a feeling of well-being and regular, slower, deeper respiratory movements, which are chiefly confined to the lower zone of the thorax and upper part of the abdomen. A runner sometimes explains the loss of a race by the fact that he never got his "second wind." In other words, the mechanism upon which this phenomenon depends was not brought into operation. If the poor fellow had only *known* the muscular combinations which favour its development instead of trusting to luck, as only too often is the case, possibly the race might have been his.

It is true, Dr. Hill has pointed out, that the mechanism of respiration in an exhausted runner or boxer (and, I may add also, in any one who suffers from failure of the respiratory powers, temporary or otherwise, be the cause what it may) is chiefly thoracic in character—a disorderly, vitiated type of respiration. Dr. Hill has also told us that in easy breathing the belly, rather than the chest, is used, which is a physiological necessity, seeing that the efficiency of the circulation is largely dependent upon the ability of the respiratory pump to keep the heart adequately filled, and the rhythmical squeezing to which the splanchnic area is subjected, when the diaphragm and abdominal muscles are properly used, makes for this most desirable end. But, it seems to me, he does not draw the logical and legitimate conclusion warranted by these facts—namely, that as long as the muscles governing the respiratory act efficiently perform their duties, other things being equal, breathlessness and fatigue cannot overtake one. In other words, given a sound heart, lungs, and other organs, the respiratory fitness of the individual is the true regulator of a work of muscular endurance. "There's the rub."

Those who have studied the subject find plenty of evidence as to the early deterioration of the respiratory powers in civilized man of to-day. Indeed, the evil is so widespread, that it is not at all uncommon to find signs and symptoms of it in those not yet out of their teens, and sometimes even in young children. This unfortunate state of affairs is not the result of civilization, but the consequence of the wilful rejection of the fundamental truths of physiology and hygiene. And medical men are as great offenders as the laity in this respect. Desires and customs, not necessity or reason, seem to be the principle upon which most of us plan our exercise, bathing, clothing, feeding, and other bodily arrangements.

However, even though man arranged to be guided by reason instead of whims and fancies and trained for an athletic feat in a rational manner (by "rational" I mean systematic practice in the correct use of the muscles governing the respiratory act, in addition to training for the economical and efficient use of the other muscles concerned in the particular form of exercise), when the limits of individual endurance have been reached fatigue will necessarily supervene, but oxygen administered according to Dr. Hill's method will considerably delay its onset.

Athletes, as well as the medical profession, owe a debt of gratitude to the eminent physiologist for his researches on the use of that valuable agent, oxygen, which leaves the body better, unfatigued, unpoisoned by the unoxidized products produced in the excessive strain of great exertion.—I am, etc.,

R. F. E. Austin,
Major, R.A.M.C.

Chatham, April 9th.

ARTERIO-SCLEROSIS.

Sir,—In the Journal of April 10th, p. 904, in a review of Dr. Josué's work on arterio-sclerosis, I observe a statement that I have obtained aortic lesions similar to those following the intravenous injections of adrenalin "by swinging rabbits by their hind legs." In justice to my colleague, Dr. Klotz, may I point out that the experiments here referred to are his, not mine? I can only state that by periodic suspension of rabbits for a few minutes daily by their hind legs most advanced lesions can be produced, and that these observations of Klotz's will be found in detail in the *Centralblatt für Allgemeine Pathologie*, vol. xix, 1908, p. 535.—I am, etc.,

J. George Adami.

Montreal, April 19th.

RHEUMATISM AND APPENDICITIS.

Sir,—In the British Medical Journal of March 20th, Dr. J. A. B. Hammond records a case of appendicitis in a rheumatic subject which yielded rapidly to salicylic medication. Some months ago I had a case in which the clinical features were very similar to those described.

Miss S., aged 38, suffering from chronic rheumatism—"flying" pains, swollen joints, and stiff neck—came to me for a course of electricity and massage. Salicylates had been tried without much benefit, and I had it in my mind to place her on some form of intestinal antiseptic treatment, the breath being foul and the motions evil smelling. Within three days of my first seeing her, however, she developed what appeared to be a severe attack of appendicitis. A history of former similar attacks of a milder character was elicited, and so acute were the symptoms that it was deemed necessary to call in a surgeon. Immediate operation was advised, and the abdomen accordingly opened. The operator expected to find pus, or, at least, an ulcerated appendix on the point of perforation. Slight swelling and congestion was, however, all that was evident. In fact, the patient would almost certainly have recovered without surgical interference.

Now, the question arises, was the appendicular lesion due to the same cause as produced the joint troubles—that is, to the "rheumatic" toxin? In other words, was it of a kind which would never in any circumstances have gone on to suppuration? The marked effect of salicylates in Dr. Hammond's case would seem to indicate that such specific appendicitis may occur, but many similar observations are needed to establish its existence.

In any case, the association of appendicular trouble with chronic rheumatism is one more link in the chain connecting this latter disease with intestinal auto-intoxication. It is surely a plea for the treatment of arthritis deformans and kindred evils by a vigorous attack upon putrefactive organisms in the bowel, either by the exhibition of such drugs as creosote and guaiacol, or, better still in the opinion of many observers, by the introduction of suitable cultures of lactic acid-forming bacilli.—I am, etc.,

Francis Hernaman-Johnson, M.B.,
Ch.B.Aberd., R.N.(ret.)

Bishop Auckland.

MR. JOHN DAVIDSON.

Sir,—Among the documents found since the disappearance of Mr. John Davidson was one in which he speaks of his inability to face the effects of cancer. His family wish, in the circumstances, to discover on what grounds he based his belief that he was suffering from this disease, and I write on their behalf to ask if you will allow me through your columns to request any medical man whom Mr.

Davidson consulted in the last few years to communicate with me at this address if he feels himself free to do so.—I am, etc.,

36, Roland Gardens, S.W., April 23rd. GRANT RICHARDS.

HISTOPATHOLOGY OF THE VERMIFORM APPENDIX.

SIR,—On page 235 of the JOURNAL of January 23rd there is an editorial entitled Histopathology of the Vermiform Appendix, which is in the main an exposition of some of the more striking points contained in C. U. Maalöe's *Histopatologiske Studier over Processus Vermiformis.* (1908. Copenhagen: Lund.) Maalöe's work is not, unfortunately, available to me in Melbourne, and I am therefore unable to say whether this author has or has not acknowledged the work of his predecessors in this important field of science and surgery; but, as the general tendency of your note is to infer that Maalöe's points are something novel, I trust you will permit me, in justice to myself and to the school which I have now the honour to represent, to remind you that much of what you mention in your article has already been published by myself, both alone and in conjunction with others.

In April, 1906, I published, with Dr. L. A. H. Lack, now of the Indian Medical Service, in the *Journal of Anatomy and Physiology*, page 247, vol. xl, an article entitled The Vermiform Appendix of Man and the Structural Changes therein Coincident with Age. This article is fully illustrated, and concluded as follows:

1. Lymphoid tissue is the characteristic feature of the true caecal apex throughout the animal kingdom, including man. As the vertebrate scale is ascended this tissue tends to be collected together into a specially differentiated portion of the intestinal canal, the vermiform appendix.
2. The amount of lymphoid tissue present at the caecal apex varies most probably, though not certainly, in accordance with the varying diet of the animal.
3. The vermiform appendix of man is not, therefore, either a vestigial remnant or an organ in a state of retrogression, but is an actively functional lymph gland. It is no argument against this view to state that because the appendix is frequently removed without any apparent functional disturbance it is useless, because the same argument might be adduced against the stomach, which is occasionally removed either wholly or in part, and with more or less success.
4. The appendix of man is not equally functional throughout the whole of life. At birth it contains practically no lymphoid tissue; within six weeks it has become a lymph gland, and continues as such during the first half of life, after which it progressively declines in functional activity. Lymphoid tissue is therefore a tissue of the growing animal.
5. Obliteration of the vermiform appendix is a pathological process.
6. The functions of the human appendix are the same as those of any other collection of lymphoid tissue in any other part of the body.

Of these six conclusions, the first three are the embodiment of my earlier work on "The True Caecal Apex, or the Vermiform Appendix; its Minute and Comparative Anatomy," published in the *Journal of Anatomy and Physiology*, vol. xxxv, p. 83, 1900–1. This paper was the result of an extensive examination on the caecal apex of the lower animals, and in due course was followed by the one already mentioned on the human appendix. In the interval between the publication of these two papers, Mr. C. B. Lockwood of London published some most important work on the minute structure and lymphatic drainage of the appendix, and this left Dr. Lack and myself free to investigate other points, which were precisely those which your article would lead one to infer are now first known as the result of Maalöe's work. Dr. Lack and myself demonstrated at Geneva in 1905, and published in 1906, everything that you now state Maalöe has done as regards the increase in the size of the follicles, their decrease, the individual variations in the same, the fact that the appendix is not an organ in process of disappearance, and the contravention of Ribbert's views as to obliteration.

At the request of the editor of the *Intercolonial Medical Journal*, I published in that journal in 1906 an epitome of my investigations on the vermiform appendix, a copy of which I now enclose; from this you will see that Ellenberger has also achieved similar views to Maalöe, but like myself at an antecedent period. A study of the chronological order of the publication of Ellenberger's, Maalöe's, and my own work will provide the reader with a singular example of scientific plagiarism, which, however regrettable from the standpoint of mere personal vanity, is in the interests of scientific truth invaluable, as it proves most conclusively my contention of 1900 "that the vermiform appendix of man is not a vestigial structure, but is, on the contrary, a specialized part of the alimentary canal," to be absolutely correct.

You will, Sir, I feel sure, believe me when I say that I write in no carping or antagonistic spirit, but merely in the interests of truth and justice. The former, we are assured, is great and will prevail; the latter is not infrequently blind.—I am, etc.,

RICHARD J. A. BERRY.
Professor of Anatomy, University of Melbourne.

February 24th.

"ANTIVIVISECTION AND WOMAN SUFFRAGE."

SIR,—Of course, having the evidence in my hand at Bristol, I said that the inspectors "were never instructed to make surprise visits." To suppose and suggest as you do that I should misquote evidence all the world can procure and read for themselves for no reason whatever is simply silly. For what I actually said, or what I was reported to have said form an equally authentic basis for the conclusion at which I was inviting the meeting to arrive—namely, that the inspectors were instructed by the Home Office to be inefficient.—I am, etc.,

Greywell, April 26th. STEPHEN COLERIDGE.

*** We have furnished proof that Mr. Coleridge did in fact misquote the evidence as to inspection given before the Royal Commission; and he does not deny the accuracy of the report on which we founded the indictment. We are willing to believe that this may have arisen from a misunderstanding of its import; but even if Mr. Coleridge sees no distinction between his allegation that inspectors are "told never to make surprise visits" and the evidence of Sir James Russell that he had never been instructed to make surprise visits, it must be obvious to persons of clearer mental vision that there is a vital difference between the two statements. Mr. Coleridge says it is silly to suggest that he misquotes "for no reason whatever." We agree that this would be silly, but we have made no such suggestion. It would be as easy to give a reason for his misquotation of this particular phrase as it would be to give one for his suppression of the statement made by Sir James Russell—in reply to the very next question (533)—that he very rarely gave notice of his intention to visit. Mr. Coleridge is also careful to say nothing about the other misstatement with which we charged him—namely, that the inspectors told the Commissioners in cross-examination that they never made surprise visits to laboratories. For this also a reason could readily be assigned. As for the "detective" method of inspection which Mr. Coleridge blames the Home Office for not adopting, we should have thought that the experience he has had of it would have been sufficient to convince him of its unsatisfactory results.

JEWS AND ALCOHOLISM.

SIR,—I have read the article in the BRITISH MEDICAL JOURNAL under the above heading with considerable interest, especially the paragraphs referring to the infantile mortality among the Jews. I am in a position to add to the facts mentioned there a very striking one which came to my knowledge recently when preparing a paper on the subject. Whilst the infantile mortality in Manchester in 1907 was generally 147.4 per 1,000, that of Ancoats was 188, and that of Cheetham 91. The latter district is inhabited to a very large extent by Jews of the poorer class, whilst Ancoats has very few Jews. The two districts are close to one another; in fact, one ends where the other begins, and they have practically the same geological and climatic conditions, yet the one with the large Jewish population has an infantile mortality less than half that of the other. That this is not merely a coincidence is proved by the figures for the year 1906. They were respectively 169, 203, and 94. Dr. Niven, medical officer of health, thinks the cause lies largely in the fact that most Jewish mothers suckle their children, and I agree with him. One seldom sees bottle-fed children among the poorer Jews, but, on the other hand, mothers belonging to the well-to-do classes rarely suckle

their babies. I have no doubt that this fact more than any other accounts for the greater resistance to disease shown by the bulk of Jewish children, though the temperance of their parents and the rarity of syphilis are not altogether negligible quantities.

I have no statistics referring to the infantile mortality among the different sections of the Jewish people, but my experience makes me incline to the belief that, roughly speaking, it is comparatively higher among the well-to-do.—I am, etc.,

Manchester, April 20th. J. DULBERG.

The Services.

ARMY MEDICAL SERVICE.

The Alexander Prize.

THE Alexander Memorial Prize consisting of £50 and a gold medal is awarded every third year to the writer of the best essay on a subject connected with military medicine, surgery, or hygiene.

The competition is open to executive officers of the Royal Army Medical Corps on full pay, with the exception of the professors and assistant professors of the Royal Army Medical College during their period of office.

No prize has been awarded for the triennial period ending December 31st, 1908.

The subject for the next prize essay is the following: "Tropical Abscess of the Liver." It may be treated either from a clinical or an etiological standpoint, and the essay must bear evidence of original observations. No essays should exceed 20,000 words, exclusive of tables, which may be added as appendices. Essays should be sent in to the Secretary of the Prizes Committee, Royal Army Medical College, on or before December 31st, 1911; each essay to have a motto, and to be accompanied by a sealed envelope bearing the same motto, and containing the name of the competitor.

Classification of Cases.

COLONEL R. H. FORMAN, P.M.O., Bombay Brigade, writes: In the JOURNAL of March 20th, 1909, p. 758, Colonel E. B. Hartley expresses a wish that the out-patient system should be adopted in the Imperial Army. It has been, officially, for five years back, and unofficially in many places for a score of years.

ROYAL ARMY MEDICAL CORPS (TERRITORIAL).

The Second Home Counties Field Ambulance.

UPWARDS of 150 members of the Second Home Counties Field Ambulance took part in a field day on Easter Monday. The sections represented were those of Canterbury, Ashford, and Whitstable, respectively commanded by Lieutenants Hollis and Barford, Lieutenant D. L. Hamilton, and Lieutenant W. H. Flint. The proceedings, which in spite of rain and wind were a great success, were under the general command of Major A. R. Henchley, of Canterbury, while Lord Lucas, Parliamentary Secretary of State for War, paid a visit to the scene of operations in the afternoon. In the evening there was a prize distribution in connexion with the corps, at which Major Henchley, supported by the Dean of Canterbury, Lord Lucas, Mr. Henniker Heaton, the Sheriff, and other notabilities, presided. On the conclusion of the speeches, there was a fencing display, and some tableaux representative of ambulance work on the field of battle.

Second London Division.

About 50 of the medical officers of the Second London Division of the Territorial Force dined together at the Café Monico on April 22nd. Representatives of all the medical units and many of the battalions, as well as of the officers available on mobilization, were present. Among the guests were Sir Alf. Keogh, K.C.B., Director-General A.M.S.; most of the staff of the Second London Division, including Colonel Magill, C.B., staff officer to the A.M.O., and Colonel Oughterson, Secretary to the London County Association. Lord Esher, Lieutenant-General Sir W. H. Mackinnon, K.C.B., C.V.O., and Colonel Giles, V.D., A.M.O., First Division, wrote regretting their inability to accept invitations.

After the toast of "The King" had been duly honoured, the Chairman (Colonel Andrew Clark, V.D., Administrative Medical Officer) proposed "The Medical Services," and in the course of his remarks stated that all the medical units in the division were now nearly complete; great difficulty, however, was experienced in giving the necessary instruction, for which the men were very eager, owing to the inadequacy of the head quarters. With the exception of No. 4 Field Ambulance all the units were quite dependent on the good will of others for a place in which to drill and get their theoretical instruction, and, although the necessary equipment for instructional purposes had been granted, it was impossible to draw it, as there was no place in which to keep it.

The Director-General replied, and spoke of the original formation of the R.A.M.C. (Vols.) and their reorganization into Field Ambulances. He eulogized the progress of the medical units, many of them having great difficulties to contend with, chiefly owing to the absence of head quarters; this was felt more in London than anywhere else. He also spoke of the importance of enlisting men for water duties in the various combatant battalions.

Colonel Hartt, V.D., proposed "The Second London Division," and mentioned how much the medical officers were indebted to General Vesey Dawson and his staff for the instruction and assistance they had afforded.

Colonel Maude, C.M.G., D.S.O. (till lately General Staff Officer of the Division, now Assistant Director of the Territorial Force), who replied, spoke of the various arrangements that had been made for instruction, specially remarking on the course of lectures on sanitation delivered by the Divisional Sanitary Officer, Surgeon-Colonel W. R. Smith, V.D., which he and the other divisional officers had attended and appreciated.

Colonel Stephenson, C.B., V.D., Honorary Colonel of the R.A.M.C.(T.) Second Division, proposed "The Guests," to which Dr. Dawson Williams replied.

The formal proceedings closed with the toast of "The Chairman," proposed in a felicitous speech by Lieutenant-Colonel Lloyd-Williams.

After the guests had left a discussion took place as to the desirability of forming a Second Division mess, or of making a dinner in London an annual function. It was finally agreed that there should be an annual dinner of the division; and also that the First Division should be approached with a view to making it a joint dinner of the two London divisions.

The meeting broke up about a quarter past eleven, and it was generally agreed that it had been most successful and enjoyable, thanks to the energy of Captain Jerman, mess secretary of the Fourth and Fifth Field Ambulances, who had so ably organized it.

VOLUNTEER LONG SERVICE MEDAL.

THE Army Council has decided that the Volunteer Long Service Medal may be granted to all officers of the late Volunteer Force who were serving on March 31st, 1908 (when the force ceased to exist), and had then completed a total of sixteen years' service. This decision will apply to all officers, whether they have joined the Territorial Force or not.

Medico-Legal.

A MILK WARRANTY.

IN the Croydon County Court on March 16th, Dr. Harold Bentley was awarded damages against a firm of dairy farmers at Mitcham, who verbally contracted to supply him with nursery milk for his infant child, such milk to be drawn exclusively from Mitcham cows, to be unadulterated, and to be free from preservatives. While taking this milk the child became ill, and the court held that this illness was due to the presence in the milk of boracic acid, introduced into it by the defendants in breach of their admitted warranty. The child, born at the end of December, 1907, was breast-fed until March, 1908, when it was put on cow's milk. As the first source of supply was not found satisfactory, the plaintiff looked elsewhere for milk, and eventually a verbal contract, of the effect already indicated, was entered into by the defendants through their manager. This warranted milk at first seemed to suit the child, but after a few weeks the child ceased to finish its meals, and began to fall off in condition and to suffer from intermittent attacks of diarrhoea. In August it was sent to the seaside for about a fortnight, and during this absence improved in health. On its return, use of the defendants' milk, as also of cream obtained from them, was resumed, and again the child grew ill. Finally, in September a specialist in children's diseases visited the child, and came to the conclusion that the milk used was in fault. Owing to the warranty received, this was not deemed probable, but nevertheless a sample of the milk was sent to an analyst for examination, and was reported to contain 0.03 per cent. of boracic acid—an amount equal to about 5 grains in each pint. It was shown that the milk was sent to the analyst as received from the defendants, except for the addition of a little sugar of milk habitually taken by the child with its milk, and that though borax was used in cleaning the child's bottles, none of it could have got into the sample. The court held it unreasonable to believe that the boracic acid was, as suggested by the defendants, derived from the sugar of milk, and it accepted the view that the child's symptoms were those of boracic acid poisoning, and not of summer diarrhoea, as argued by the defendants. Furthermore, in weighing the denial of the defendants that they were responsible for the presence of the boracic acid in the milk, the court accepted and kept in mind Dr. Bentley's statement that the defendant's manager—a man engaged all his life in the milk trade—had alleged, when challenged on the point, that not only had he added nothing to the milk, but he was not even quite sure what boracic acid was.

Evidence was given by four medical men. Dr. Forsyth said he had seen the child on three occasions. Its symptoms were such as would result from boracic acid poisoning, and the course of its illness was not consistent with a diagnosis of summer diarrhoea. Dr. E. Spriggs, who had been supplied with a clinical account of the child's illness, was satisfied that it was caused by boracic acid in its milk. The same view was taken by Dr. Adams, of Croydon, who examined the child and its clinical history in January, after its recovery. On the

other hand, Dr. Kempster, of Battersea, who, on behalf of the defendants, investigated the matter likewise in January, held that it had suffered from gastro-enteritis and that it was due to "a combination of circumstances," and not to boracic acid poisoning.

In dealing with the question of damages, Judge Harrington said that, though it was important that milk supplies should be pure, it was well recognized that boracic acid was commonly used for the preservation of milk, and in small quantities was not deleterious; nevertheless, it was expressly agreed in this case that the milk should be free from preservatives, boracic acid being specifically mentioned. The plaintiff could not recover damages for the great anxiety which had been caused him, but he was entitled to the expenses entailed upon him. The child, who appeared in the case as joint plaintiff with its father, was entitled to something for the pain and suffering endured; but suffering endured by a child could not be considered in the same way as that of a person of mature years. Moreover, it had now completely recovered, and Dr. Bentley did not ask for substantial damages. Hence a sum of £5 5s. would be held to meet the case, the judgement being for this sum, in addition to £5 16s. 6d. (the expenses entailed on the senior plaintiff) and costs on B scale.

BONDS NOT TO PRACTISE WITHIN AN AREA.

BETA writes that he is under a bond not to practise within two miles of "A.'s" surgery. He is now desirous of purchasing a partnership with "B.," whose surgery is nearly three miles from "A." Is he debarred from visiting patients living within two miles of "A.'s" surgery?

*** If our correspondent has signed a bond not to practise within two miles of "A.'s" surgery, how can he legitimately visit patients within that radius? Such a proceeding would be a violation of his engagement, and subject him to the usual penalties.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following M.B. candidates have been approved in the subjects indicated:

PRELIMINARY EXAMINATIONS: *Mathematics.*—Sir W. E. T. Avery, Bart., University; E. L. Collins, non-collegiate; D. M. Ely, Exeter; C. G. Fannin, Exeter; E. H. Kennard, Exeter; W. R. Scott, New.

Mechanics and Physics.—L. H. D. Acland, Magdalen; Sir W. E. T. Avery, Bart., University; W. G. V. Blogg, Keble; R. B. Bourdillon, Balliol; B. A. Bull, Jesus; C. R. Bury, Trinity; C. H. Carlton, St. John's; F. B. Chavasse, Balliol; W. T. Collier, Balliol; W. J. Hart, Queen's; E. F. A. Hay, Corpus Christi; J. W. Horan, Brasenose; J. A. Liddell, Balliol; J. M. D. Olmsted, Queen's; A. L. Parker, non-collegiate; N. M. Parsons, New; S. K. Ray, Exeter; G. T. Selby, New; R. G. W. Stark, non-collegiate; R. H. Sutch, Merton; A. E. Swinton, New; H. A. Tozer, Jesus.

Physics.—H. E. A. Boldero, Trinity: R. W. J. A. Cushing, Marcon's Hall; R. A. Fawcus, Oriel; L. Gameson, Queen's; F. C. Gladstone, Pembroke; J. J. S. Hill, Jesus; R. J. Inman, University; S. Jalland, Lincoln; E. R. Speyer, New; H. A. B. Whitelocke, Christ Church.

UNIVERSITY OF CAMBRIDGE.

C. L. BOULENGER, B.A., King's College, has been appointed Assistant to the Superintendent of the Museum of Zoology.

Application to occupy the University's Table in the Zoological Station at Naples should be made to Professor Langley before Thursday, May 20th.

Examination Results.

The following candidates have been approved at the examination indicated:

D.P.H. (*Parts I and II*).—J. H. Aikman, A. Bremner, H. J. Cates, H. S. Chate, T. A. Dowse, F. E. Field, J. F. Gaskell (Cai.), H. Gordon-Smith (Trin.), L. W. Hignett, W. Kirkby, W. J. Lambert-Down, S. F. Linton, C. H. W. McCullagh, L. MacLachlan, Margaret S. Maclean, S. M'Naughton, Bona S. Matthews, J. H. Maund, J. Mitchell, B. R. Naidu, G. E. Oates, A. B. Olsen, A. W. Reid, J. R. Robertson, C. Rolleston, P. L. Stallard, S. Subba Rao.

UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B. (*Anatomy and Physiology*).—H. el Arculli, F. Dallimore, T. B. Evans, H. V. Forster, Elsie C. Hanson, H. W. Jones, R. Kennon, R. H. Knowles, T. H. Martin, H. Neild, A. L. Oluwole, W. H. Parry, H. Pierce, J. P. Rafter, H. G. Roberts, A. Seddon, S. N. Wright.

Materia Medica.—G. S. A. Bishop, F. G. F. Browne, D. H. Clarke, P. Le F. Nortje, T. O. Williams.

FINAL M.B., CH.B. (*Part A*).—A. Adams, T. C. Clarke.

Part B.—J. A. Donnellan, A. A. Rees, S. P. Sykes, *S. V. Tinsley.

* Second class honours.

The Diploma in Public Health has been conferred on C. S. Brewer, H. M. Cargin, Katharine R. Drinkwater, B. T. J. Glover, C. O. Stallybrass, J. Teare.

The Diploma in Tropical Medicine has been conferred on R. G. Abercrombie, J. R. P. Allin, H. P. W. Barrow, P. Carr-White, W. S. Clark, R. Cope, W. D. Hayward, W. P. Meldrum, J. C. Murphy, M. G. Samuel, M. H. Thornely, W. S. Webb.

THE ROYAL UNIVERSITY OF IRELAND.

THE following candidates have been approved at the examinations indicated:

M.D.—D. Gillespie, W. R. Hayden, R. Johnston, W. I. Leighton, A. Leitch, R. McCarrison, J. H. Stewart.

M.B., B.CH., B.A.O. *Upper Pass.*—*E. Forbes, *P. Keelan, *A. Kidd, *J. M. O'Connor, B.A., T. Taylor, *V. Wiley, *J. M. Williams.

Pass.—*T. P. Carroll, J. A. Clarke, B.A., E. M. Condy, W. T. Henderson, W. F. Hooper, Caroline V. Lowe, S. W. McComb, J. P. Moore, H. Newman, *P. H. O'Connell, *J. J. O'Kelly, B.A., E. O'Reilly, R. H. Robinson, W. H. Sheffield, M. Shipsey, W. S. R. Steven, S. J. Watson, B. A. West.

* Qualified to sit for honours in one or more subjects of the examination.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved at the examinations indicated:

SURGERY.—*H. A. Hancock.

MEDICINE.—*†B. A. Keats.

FORENSIC MEDICINE.—B. A. Keats, S. H. Scott.

MIDWIFERY.—L. Ettinger, J. A. Koch, R. Lamort, B. W. Loewenberg, S. H. Scott, T. A. F. Tyrrell.

* Section I. † Section II.

UNIVERSITY OF DUBLIN.

THE following were among the degrees conferred at a meeting of the Senate on April 22nd:

M.D.—G. B. M'Hutchison, G. S. Thacker.

M.B., CH.B., B.A.O.—A. K. Cosgrave, D. Drew, R. D. FitzGerald, H. R Kenny, A. H. Laird, W. D. Mitchell, G. H. L. M'Carthy, G. B. M'Hutchison, D. M. Moffatt, H. H. Ormsby, E. H. Sheehan, A. J. Stals.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

FIRST EXAMINATION.—S. Wright, C. A. Slaughter, J. H. Appoo, H. A. Topalia, J. Muller, W. Lessey, B. F. Limji, J. G. Lessey, H. G. Anderson, V. D. Nimbkar, S. A. Anthoni, R. B. Galt, E. I. Parry, and W. Bird.

SECOND EXAMINATION.—R. H. Thomson, S. D. Large, A. E. MacKenzie, F. R. Lucas, J. R. Smith, A. Butterfield, O. W. Bateman, W. F. Gibb, T. R. C. Melrose, F. D. Johnson, K. Nath, V. T. W. Eagles, J. A. Frost, J. Ross, E. P. Ghose, H. Buksh, P. C. Banerjee, and W. W. W. Watt.

THIRD EXAMINATION.—J. Muller, C. G. Timms, R. M. McC. Wilson, B. G. Shiroadkar, C. L. Ievers, R. Parry, J. K. Sharma.

FINAL EXAMINATION.—J. R. Le Teuzel, C. L. Stewart, H. L. Batra, B. Nath, C. W. Gee, T. Mohan, H. W. Garcelon, W. R. Waddell, C. E. Watts, F. R. Watson, S. W. Hogg, J. McKelvey, H. H. Jackson, A. McMurray, A. E. Herat, W. Whitfield, R. G. Sherlock, J. McTurk, A. J. Brown, J. M. Mehta, J. M. Mody, T. C. Shand, R. H. Gray, K. N. Khory, M. L. Burke, T. J. George, J. E. Spencer.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examination indicated:

SECOND PROFESSIONAL.—J. C. Attridge, J. Barrett, W. R. Beeston, U. L. Bourke, F. C. Fisher, J. Good, A. F. C. Hogg, B. Malaher, F. P. MacDermott, B. Murphy, L. J. O'Donovan, C. Petit, P. O'C. White, G. Wilson, G. Young.

Obituary.

THE LATE MR. SIMEON SNELL.—From the list of persons representing the British Medical Association at the funeral of the late President the name of Mr. Smith Whitaker, Medical Secretary, was accidentally omitted.

THE International Milk Trade Congress will hold its fourth meeting, under the patronage of His Royal Highness the Grand Duke Joseph, at Buda-Pesth in June next (6th to 11th). The questions to be discussed are divided into three groups—legislative and administrative, hygienic and veterinary, and industrial. About 600 persons have already intimated their intention to take part in the congress, and some sixty communications are in the hands of the secretary.

Public Health
AND
POOR LAW MEDICAL SERVICES.

BACTERIOLOGICAL EXAMINATIONS IN THE PROPHYLAXIS OF DIPHTHERIA.

In an appendix to a reprint[1] of a paper read before the Society of Medical Officers of Health dealing with the scientific control of diphtheria, Dr. W. G. Savage, of Colchester, gives an account of an inquiry made by him as to the extent to which scientific facilities established in aid of the control of diphtheria are commonly utilized. Having communicated with the medical officers of about 450 of the larger sanitary areas in England and Wales, he received 304 replies, and from an analysis of them he concludes that in most of these areas free bacteriological examination of smears is available. He found, however, diphtheria patients were bacteriologically examined before discharge from hospital in less than two-thirds of these districts, and only in 15 per cent. of the cases were three consecutive negative results deemed to be required. As for cases isolated at home, only in 23 per cent. of the districts were smears examined before the patients were released from quarantine. The neglect of bacteriological methods in respect of "contacts" he regards as still more striking. He found that only in 11 per cent. of the districts were "contacts" examined bacteriologically, and in 6 per cent. such examination was only partial. As for antitoxin, about half of the medical officers of health employed it prophylactically. The answers to his question regarding periods of detention were rather vague, but showed that where it was the practice to examine cases bacteriologically before discharge a considerable percentage of the cases were detained for three or four weeks longer than those discharged elsewhere on clinical evidence only. Many of the latter, therefore, must, he concludes, be sent out with living diphtheria bacilli in their throats.

SALARIES OF WORKHOUSE MEDICAL OFFICERS.

THE Eastbourne Guardians have declined to accede to the application of Dr. James Adams for an increase of salary; but, while refusing his request, they have expressed high appreciation of his services. There are as many as 131 patients in the infirmary and 194 in the workhouse. At present the stipend is only £130. Drugs are supplied by the guardians, and are dispensed by the medical officer at a cost to himself of £20 per annum. The reasons given by the guardians for their decision are most unsatisfactory. One is that the salary is not smaller than those paid in other unions of the same size; and it was further stated that such posts were often held by medical men who were beginning practice and were prepared to accept very moderate remuneration.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Borough of Burton-on-Trent.—The population of Burton-on-Trent as estimated by the Registrar-General at the middle of 1908 was 53,936, but the Medical Officer of Health (Dr. J. M. Cowie), taking local conditions into consideration, estimated it at only 53,000. The birth-rate, calculated on the latter estimate, was 22.4 per 1,000, and the death-rate from all causes 12.9 per 1,000. The infantile mortality-rate was 112 per 1,000 births. Of the 133 children who died under 1 year old as many as 101 did not reach the age of 6 months. The illegitimate death-rate was equal to 243 per 1,000 illegitimate births. Dr. Cowie refers to the statistics given in the supplement to the sixty-fifth annual report of the Registrar-General, in which brewing as a trade is shown in a very unfavourable light from a health point of view. From figures which he has taken out covering a period of eight years with reference to the mortality among men above 15 years of age engaged in the brewing trade in Burton, he shows that, although there is a greater mortality amongst brewers than among all males in the borough, the excess is not nearly so great as it is found to be in the whole country. From diseases of the circulatory system and of the respiratory system the Burton brewers suffer in a less degree than other men in the town.

Borough of Guildford.—Calculated on a population of 22,800, the birth-rate was 23.6 per 1,000 and the death-rate 11.0 per 1,000. The infantile mortality-rate was equal to 73 per 1,000 births. The deaths among young children were at one time unduly high in Guildford, but during the past five years they have been remarkably low. It would be of interest to know whether this decreased mortality is real or only apparent—that is to say, whether it is in any way connected with the enlargement of the area of the borough which took place in 1904. It is not possible from the report to ascertain whether any special parts of the town have a higher rate of infantile mortality than others, for Dr. Pierce does not include Table II of the Local Government Board among his statistical records. Some trouble has been experienced at the Guildford, Godalming, and Woking Joint Hospital with respect to return cases of scarlet fever. The following notice is therefore now given to patients on their discharge: "Although every care is exercised to ensure that patients are free from infection before leaving the hospital it is impossible to guarantee this. Whenever practicable, the child should be sent to a house where there are no children, but when this cannot be done care should be taken for at least three weeks that the child does not kiss or come into close contact with any one, and it should on no account be allowed to sleep with others, especially in the same bed. The child should be taken into the fresh air as much as possible, but must not be sent to school or into any other assembly of children. It is also recommended that during this period the articles used by the child (such as handkerchiefs, towels, toys, cup, plate, spoon, etc.) should be kept distinct from those used by others."

Borough of Neath.—The annual report of the Medical Officer of Health on the vital statistics and sanitary condition of the Borough of Neath records 556 births and 288 deaths, including 17 non-residents. The birth-rate was 33, whilst the death-rate was 16 of the estimated population. The general health of the town was good, the weather conditions, excepting during the first two months, being favourable. The deaths from the principal zymotic diseases numbered 35, giving a zymotic death-rate of 2 per 1,000 of the population. The number of deaths of infants under 1 year of age was 73, equivalent to an infantile mortality-rate of 131, as compared with 121 for the whole country. The figure is considerably less than that for 1907, when Neath stood in the unenviable position of being at the head of the list for the county. The medical officer states: "At the same time, the figure for 1908 is not one that can be made cause for congratulation. There are far too many children brought into the world in modern times whose sole mission seems to be to suffer needlessly. The occurrence of 3 deaths recently within a fortnight of infants under three weeks old from the disease known as 'white mouth,' from which no healthy infant—there are extremely few infants unhealthy at birth—ought to suffer, but which practically every child of the working or poorer classes has to suffer from, is only an incident in what is nothing less than a scandal. I have frequently pointed out that whilst the untrained midwife, with her habits and superstitions, is allowed to foist herself on the community the present condition of things must endure. In this connexion I think that it is more than 'wondrous strange' that women of notoriously drunken habits—and we have several of them in Neath—should be allowed to practise this profession. The law seems sufficiently explicit on the point, and I have more than once complained of it, with its tragic consequences to mother and infant, to the proper authority, but my complaints have hitherto had no effect. I am about to address a circular to the midwives, calling their attention to the means of prevention of 'white mouth,' and have secured the help of the National Society for the Prevention of Cruelty to Children, who promise to institute proceedings in case of neglect on the midwife's part." With regard to meat and food inspection, it is stated that the slaughterhouse was visited several times weekly by the inspector. The carcasses of eight animals were seized and destroyed, by order of a justice, for tuberculosis. In one case the slaughterman tried to "strip" the pleura, for the purpose of removing traces of the disease. Such attempts at concealment might be made ground for prosecution. There was one prosecution against a fishmonger for being in possession of a quantity of decomposed fish, and also one prosecution in respect of milk below the standard; both were successful. In regard to meat inspection, the medical officer of health recommends that power should be given to the local authority to prevent the bringing in of meat from outside the borough, sometimes from the boundary line, as to which there is no guarantee that it has been inspected. A localized outbreak of diarrhoea in October was traced to eating brawn made by a butcher, but by what means the brawn became infected it was impossible to say.

Croydon Rural District.—Some idea of the rapid growth of the Croydon Rural District may be gathered from the statement that in 1900 the number of occupied houses was 6,597, whereas in 1908 it was 11,362. There are within the district the Cane Hill Asylum and the Holborn Workhouse and Schools, and, omitting the inmates of these institutions, the estimated population in the middle of last year was 57,600. The birth-rate was 25.8, the death-rate 10.1 per 1,000, and the infantile mortality-rate was 84 per 1,000 births. The District Council places at the disposal of all medical practitioners the means of having the diagnosis of cases of infectious disease confirmed or otherwise, and also at the end of the illness for determining whether the patient is free from infection. With regard to diphtheria, it is the custom to consider each case infective until a bacteriological examination shows the throat to be free from the Klebs-Loeffler bacillus. Measles has been notifiable in the Croydon Rural District since 1890, and in 1908 there were notified 999 cases and 31 deaths occurred. Dr. Fegen (the Medical Officer of Health) has to confess that, in spite of all endeavours, no very successful means of checking an epidemic of measles has been discovered, for all prophylactic precautions have to a very large extent proved abortive. The main factors in the spread of the disease are, in his opinion, personal intercourse, school attendance, and the gathering together of children at entertainments.

THE Southern District Medical Society of Chicago has, according to the *Medical Record*, recommended to the General Assembly of Illinois the enactment of a law requiring the sterilization of habitual male criminals, imbeciles, incurably insane, and epileptic persons in the State institutions of Illinois.

[1] *Public Health*, March, 1909.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

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CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

☞ We would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided. Correspondents are asked to write upon one side of the paper only.

CLIFTONIA asks for information as to the value of the formic acid treatment for rheumatism and as to its mode of administration.

"144" asks for advice in the treatment of one-sided subluxation of the jaw in a young lady; it occurs only during sleep and to prevent it she has to tie a bandage tightly round the head.

D. E. asks for information as to the most suitable resort in England or Wales to stay at during May and June for a sufferer from bronchial asthma.

FIBROLYSIN IN MIDDLE-EAR DEAFNESS.

SOUTH AFRICA asks for information as to an instrument for massaging the drum in cases of tinnitus and middle-ear deafness, to be used in connexion with hypodermic injections of fibrolysin, and as to whether the treatment is fairly successful.

*** Whilst the treatment of tinnitus and middle-ear deafness by means of hypodermic injections of fibrolysin has been advocated by some, it has been tried and abandoned by others. This form of treatment must therefore for the present be regarded as *sub judice*, if not as still in the experimental stage. It is therefore difficult to answer categorically in the negative or in the affirmative the second question. For information generally on the subject, our correspondent is referred to Professor A. Lucae's monograph, *Die chronische progressive Schwerhörigkeit: Ihre Erkenntnis und Behandlung*, pp. 316, 317, 318, published by Julius Springer, Berlin. The two following papers might also be consulted: Martin Sugar in Budapest, Ueber Thiosinaminbehandlung des chronischen Mittelohrkatarrhs. *Archiv für Ohrenheilkunde*, Bd. lxii, S. 241. L. Hirschland, Ueber die Verwendung des Thiosinamins und Fibrolysins in der Otologie und Rhinologie. *Archiv für Ohrenheilkunde*, lxiv, S. 107.

ANSWERS.

TREATMENT OF SYPHILIS.

ANXIOUS.—The ulcers noted in the lower part of the leg upwards of a year ago should probably be taken as evidence that the case of syphilis in question was then in an early tertiary stage. It is commonly held that once a diagnosis of syphilis has been established treatment of the case by mercury should extend to at least two years, even if no further symptoms of syphilis are observed; and it has frequently been maintained that no case can be regarded as cured until two years after the disappearance of the last observed symptom. It is neither necessary nor desirable, however, to continue mercurial treatment uninterruptedly. The extent to which mercury is pressed must depend on the course of the individual case; but, whatever that may be, its administration should be planned on a definite system of rest times during which mercury should be withheld. As this particular case has hitherto done well on grey powder, a guide to further treatment may be afforded by the following table, which is copied from *The System of Syphilis* (by D'Arcy Power and J. Keogh Murphy. Oxford Medical Publications. 1908). It is there mentioned as the routine method of giving grey powder in the British army, in which treatment of syphilis by grey powder at one time reigned supreme. The pills in question each contain 1 grain:

	Months	Pills.
First Course:		
One month taking six pills a day	1	180
Interval of three days without taking pills	—	—
One month taking four pills a day	1	120
Interval of seven days	—	—
One month taking three pills a day	1	90
Interval of one month	1	—
Second Course:		
Three months taking three pills a day	3	270
Interval of one month	1	—
Third Course:		
Three months taking two pills a day	3	180
Interval of one month	1	—
Fourth Course:		
Three months taking one pill daily	3	90
Interval of three months	3	—
Fifth Course:		
Three months taking one pill daily	3	90
	21	1,020

Aix-la-Chapelle is the spa best known for the treatment of syphilis. The course lasts three or four weeks or more, and consists in mercurial inunctions and hydropathic treatment. Its cost mainly depends on the hotel or boarding place chosen. A sum of six or eight shillings could probably be made to cover the cost of rooms and board. If, however, the patient has been free from all evidence of syphilis for upwards of a year, and is apparently in good health, there would not seem to be any advantage in sending him to any special health resort. Continuation of the present treatment for an adequate time should suffice to cure him, so far as syphilis can ever be regarded as absolutely eradicated from the system.

LETTERS, NOTES, ETC.

THE TREATMENT OF MORPHINOMANIA.

DR. S. RAMASWAMI AIYAS (Kottayam, Travancore) records the following case of morphinomania. The patient, a man aged 38, a B.A. of an Indian university and holder of a Government appointment, acquired the morphine habit two years ago as a result of a hypodermic injection given for an attack of dyspepsia; and was taking as many as eight injections a day, each containing injectio morphinae hypodermica 20 minims, and also gin to counteract occasional suppression of urine. He came under medical observation owing to the operation of a recently instituted law which made it difficult for him to obtain morphine himself. His symptoms were apathy, extreme restlessness, sleeplessness, aching pains throughout the body, and occasional clonic spasms of the muscles of the trunk and face. His appetite was poor, but, curiously enough, there was neither diarrhoea nor constipation. The patient, having agreed to attempt to abandon the habit, was first given 1-grain doses of opium by the mouth, with small doses of atropine, but as no effect on the craving was noted this treatment was dropped after a few days. To procure sleep a large dose of bromide was given on the first night, but as it did not act a 3-minim injection of morphine was given the next and following seven nights, sleep resulting in spite of the smallness of the dose. The next two nights hyoscine hydrobromide was substituted, but, proving useless, morphine was again given for three nights and was then dropped altogether. Meantime the patient had been taking during the day cold shower baths followed by massage and gentle exercise. By the end of a fortnight all craving had passed away and it is not considered likely to return. Morphinomania, it appears, is rare in Travancore, though opium eating is common.

GASTROSCHISIS.

DR. A. R. JOHNSTON (Forfar, N.B.) writes to say that in February he delivered a primipara, aged 36, of a full-term male child, perfectly formed except as regards the abdominal wall. This was defective in the epigastric, umbilical, and right and left iliac and hypogastric regions, and totally lacking in the right and left lumbar regions, with the result that the whole of the upper surface of the liver and part of the intestines and other viscera were exposed to view. The umbilical cord, which was of normal length, spread out in a fan-shaped fashion at its fetal end, and blended in the upper part of the gap with the capsule of the liver, and below with the mesenteric and visceral peritoneum. Similarly the skin of the abdominal wall blended at the upper

level with the thickened capsule of the liver (that is, its true capsule *plus* the amniotic covering derived from the umbilical cord), and in the lower part with the peritoneal covering of the viscera. The child lived twenty-nine hours, having meantime taken a few teaspoonfuls of sugar and water, and passed urine and meconium. It did not vomit, but occasionally some bloodstained froth appeared at the corners of its mouth. Before death the stomach became distended with gas, and thus brought the spleen into view, and the intestines grew red and congested. The liver was dark and exuded some blood, probably owing to breaches of surfaces being caused by the dressing applied sticking to it. The mother during the second month of pregnancy had a fright followed by a certain amount of dark-red vaginal discharge, and all through her pregnancy expected that the child when born would not prove healthy.

METHODS OF QUACKERY.

DR. JAMES W. KIDD, of Fort Wayne, Indiana, U.S.A., whose methods were explained in the BRITISH MEDICAL JOURNAL of March 13th, 1909, p. 671, is now offering to give to every person in the British Empire who has previously applied to him for treatment a complete course of treatment for ten shillings. This, he says, is not reasonable payment for the time he has spent on the case; and adds, "but I want a cured patient in your community. I must have a cured patient in every town and hamlet in your country. I have found by experience that I can afford to sacrifice all my profits to secure a cured patient in each community." He has, he adds, selected the names of a few people in each community whom he knows he can cure. The recipient is assured that it is "the chance of a lifetime to be restored to perfect health." The treatment consists of a series of tablets, and the result of their analysis will be found in the JOURNAL of March 13th, 1909, p. 671. The chief ingredients of these tablets appeared to be sodium carbonate, gentian, sodium benzoates, oil of winter green, and aloes.

DESTRUCTION OF SWEAT GLANDS BY THE ROENTGEN RAYS.

DR. H. G. ADAMSON (London) writes: In the BRITISH MEDICAL JOURNAL of April 17th, p. 953, Dr. Howard Pirie, in recommending *x*-ray applications for the treatment of hyperidrosis, states that his attention was first called to the action of the rays on the sweat glands four years ago. This treatment has, however, been used for a still longer period. Puzey in America is credited with having first employed *x* rays in the treatment of localized hyperidrosis. He published a successful case in 1903 (*Journal of Cutaneous Diseases*, August, 1903, p. 355). Engman, also in 1903, reported a case of axillary hyperidrosis cured by *x* rays (*Interstate Medical Journal*, July, 1903, p. 377). In 1904 Müller recorded a case of hyperidrosis of the hands cured by *x*-ray applications, and one of perianal hyperidrosis much benefited (*Münch. med. Woch.*, June 7th, 1904, p. 999). Glover in 1905 published a case of hyperidrosis of the axilla cured by this method (*Rev. Internat. d'Electrothérap. et Radiothérap.*, Nos. 10 and 11, April and May, 1905). Many other writers have recorded cases since then, and *x*-ray applications have now become a routine treatment for local sweating, while the method recommended by Dr. Pirie of maximum doses (4 Holzknecht units, or just short of a Sabouraud pastille dose) at intervals of one month is the recognized manner of employing them.

AURAL AND OTHER VERTIGO.

DR. W. G. WALFORD, of Finchley Road, N., in a letter relative to the article by Mr. W. S. Syme published on April 10th, informs us that a year ago he suffered from severe vertigo. After four months he suddenly discovered that it was due to wearing tight neck clothing, and on ceasing to do so recovered so rapidly that in a fortnight he was able to resume bicycling, although over 70 years of age. His general health also began to improve, and now after eight months he has regained his hearing, which before was defective. He does not consider his case one of pure aural vertigo, but of vertigo due to general cerebral congestion. He had a hard, full pulse, ecchymoses in the vitreous humours, and enlarged and congested ocular vessels. Cerebral congestion brought about by tight neck clothing lies, he believes, at the bottom of many cases of vertigo. Although no longer in practice, he has seen cases which have supported this theory, one being a boy who, sick, dazed, and complaining of toothache, had his pupils greatly dilated and irresponsive to light. All the symptoms passed off as soon as loose neck clothing was substituted for that which he was wearing. In former days, when chokers were worn in the army, apoplexy and sunstroke prevailed among soldiers to a very much greater extent than in the navy, the neck attire of sailors always being loose. Apart, however, from morbid conditions more or less obviously caused by defects in the circulation, he has found reason to believe that ill-health and cachexia of a general kind may be engendered by wearing from childhood upwards clothing which restricts communication between the heart and brain. In his own case it was not only the cerebral symptoms that passed away; his general health improved enormously, and similar improvement took place in two of his relatives—one a man past middle life, the other a young man of 26—when attention was directed to their neck clothing. This was not tight, according to ordinary rules; but, nevertheless, its further loosening was followed by great and rapid benefit to their physical condition. Furthermore, all three of them found that their necks grew in circumference. In Dr. Walford's own case this growth was very marked, for it reached as much as 2 in.

THE PUPILAGE SYSTEM.

DR. THOMAS LAFFAN (Cashel) writes: The late Mr. Wheelhouse brought frequently before the medical public the immense advantages which would be derived from reintroducing the apprenticeship system into the training of medical students. He published an excellent pamphlet on the subject, which should be read by everybody. Of course, he did not propose to bring back the old system in its entirety. Nobody now suggests a return to such a waste of years. He did, however, propose that every young man should enjoy the advantage of that practical training which apprenticeship to a practitioner alone can give. The great enemies of this proposal are the schools and licensing bodies, though they well know that nine out of every ten of those who are now turned out receive no practical training whatever, except the veneering necessary to pass the examinations. English general practitioners so often expose in the columns of the medical papers the mere theoretical attainments of many of their assistants that further labouring of this cause is unnecessary. The young idea supplies want of practical knowledge by a superabundance of conceit. The Irish College of Surgeons have a unique opportunity now for saving *their situation* by doing that which they so blindly refused to do a few years ago.

A PRIESTLY FEBRIFUGE.

CAPTAIN HODGKINSON LACK, I.M.S. (Fort Dufferin, Mandalay), writes: In your issue of February 13th, p. 444, there is a note by Dr. A. P. Lange on the subject of a herbal febrifuge used by him in Couva in the island of Trinidad, B.W.I. I think that I know the herb of which Dr. Lange writes, and I also know of one or two other shrubs used for medicinal purposes out in Trinidad. For example, the leaves of a certain shrub—known locally as "Cousin Maho"—are used, as a decoction, in cases of cardiac disease in which strophanthus would be the recognized indication. I remember its being used in the case of a member of my own family who appeared to be benefited after the known cardiac muscle tonics had apparently failed. Secondly, I am informed that, when I was about two years old, I had a severe attack of dysentery and was "given up" by the medical men in attendance—whereupon an old servant of my mother's took me in hand and gave me small doses of a decoction of the leaves of a shrub known locally as the "Bird Pepper." This appeared to produce the desired effect. Thirdly, there is a kind of weed known locally as the "English Plaintain," which appears to be of some use as a collyrium. The broad leaf is placed over a tumbler, and a fairly hot flat-iron is placed on it; the leaf shrivels and at the same time exudes a few drops of clear liquid which are collected in the tumbler. Again, in my own case, after the failure of various medicaments to effect improvement in what I now recognize to have been granular conjunctivitis, this liquid was used and gave great relief and ended up by curing me of a rather troublesome ailment. Fourthly, it is, I think, fairly well known in Trinidad that cases of seborrhoea capitis (dry) will often yield to the application of the slimy exudate obtained on splitting the thick young stems of the wild aloe, when recognized therapeutic agents fail to do any good. Fifthly—the list would not be complete without such a one——there is a kind of weed (whose local name I have now forgotten) a decoction of which has a reputation as a sedative in cases of chordee. I have no personal experience of this! Might it not be of some use if members of the Association sent samples of such medicinal agents? If arrangements could be made to investigate such substances some valuable information might be obtained. Out here in India and Burmah, many such instances come to the notice of medical men.

PRIMITIVE POLITZERIZATION.

DR. E. M. SIMMERS (Goombungee, Queensland) writes: While talking to an old settler here a few days ago I heard of a primitive method of politzerization. One of the old man's sons had become very deaf through diving in a water-hole. One day he found the deaf son laid on his back, while another son held his nose and mouth closed, and a companion thrust his whole weight on the deaf boy's abdomen. The deafness was cured by one application.

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